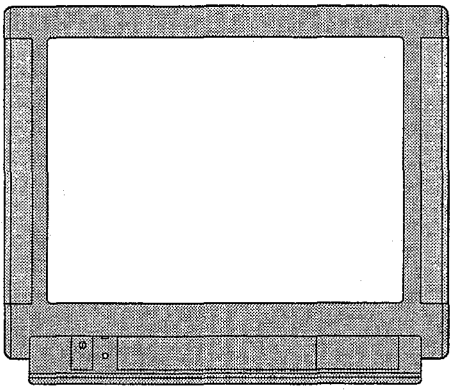
MITSUBISHI

Service Manual



Colour TV Models

CT-25AV1GD-S CT-25AV1SN-S
CT-25AV1SD-S CT-25AV1E
CT-25AV1ED-S CT-25AV1EN
CT-25AV1HD CT-25AV1R
CT-25AV1S-S CT-25AV1RN

SPECIFICATIONS

Reception System	CCIR-BG/DK* PAL/SECAM	(GD-S*, ED-S, HD, E, EN, R, RN)	
	CCIR-BG/DK/I/L PAL/SECAM	(SD-S, S-S, SN-S)	
Reception Frequency	UHF 470MHz~862MHz		
	VHF 47~170MHz (VB1), 170~448MHz (VB2)		
Satellite Tuner	Optional tuner kit SA-95G available	(GD-S, SD-S, ED-S, S-S, SN-S)	
Stereo System	ZWIETON	(all models except *some* early SD-S, S-S, SN-S*)	
	NICAM	(HD, SD-S, S-S, SN-S)	
Mains Input	AC 230V 50Hz		
Power Consumption	110W	(25AV1S-S, SN-S, E, EN, R, RN)	+18W for Satellite tuner when fitted.
(to IEC65)	114W	(25AV1GD-S, SD-S, ED-S, HD)	
Aerial Input	75 ohm		
Audio Output	12W + 12W	(25AV1S-S, SN-S, E, EN, R, RN)	
(music power)	12W + 12W	[Internal left + right = centre]	(25AV1GD-S, SD-S, ED-S, HD)
	12W + 12W	[External left + right]	
	6W + 6W	[Rear]	
Speaker	2 x (ø10 + ø4)	(25AV1S-S, SN-S, E, EN, R, RN)	
	2 x (ø10 + ø4)	[Internal]	(25AV1GD-S, SD-S, ED-S, HD)
	2 x (ø10.5 + ø5)	[Front]	
	2 x ø10.5	[rear]	
Chassis	EE3		
Picture Tube	A59EAK71X11 25", 110°	(all models except SN-S, EN, RN)	
	A59ECF20X05 25", 110°	(25AV1SN-S, EN, RN)	
Cabinet dimensions	60.4cm x 47.3cm x 50cm (approx. W x D x H)		
Weight	28Kg (approx.)		

* ***See the table on page 8 for differences on early production sets. Ask Mitsubishi Service Department for serial numbers of affected models***

MITSUBISHI ELECTRIC CORPORATION

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1 GENERAL NOTES

1.1 SAFETY PRECAUTIONS

1.1.1 General Warnings

1. Observe any cautions and safety related notes located inside the receiver cabinet and on the receiver chassis.
2. An isolation transformer should be used between the television receiver and the AC power supply point before any test or servicing is performed on a LIVE chassis television receiver.
3. Operation of these receivers outside the cabinet or with the back cover removed involves a shock hazard from the receiver power supplies. Work on the receiver should not be attempted by anyone who is not familiar with the precautions necessary when working on high voltage equipment.
4. Do not install, remove or handle the picture tube in way unless shatterproof goggles are worn. People not so equipped should be kept away while the picture tube is being handled. Keep the picture tube away from the body while handling.
5. When service is required, observe the original lead dressing. Extra precaution should be given to assure correct lead dressing in the high voltage area. Where a short-circuit has occurred, replace those components that indicate evidence of overheating.

1.1.2 X-RAY Warning

Under fault conditions the CRT can generate X-rays. The use of a lead apron is recommended if available.

When replacing the CRT only use the designated replacement part as it is a critical component with regard to X-rays. No high-voltage adjustments are provided.

1.1.3 Leakage Current Check

Before returning the receiver to the customer it is recommended that the leakage current be measured according to the following method:

With the AC plug removed from the AC source, place a jumper across the live and neutral pins. Turn the receiver AC switch on. Using an OHMMETER, connect one lead to the shorted AC plug and touch the other lead to each exposed metal part (antennas, screw heads, etc.) in turn, particularly any exposed metal part having a return path to the chassis. Any resistance below a value of 1 MEG OHM indicates an abnormality which requires corrective action.

1.2 CONTROLS AND CONNECTORS

1.2.1 Front Panel

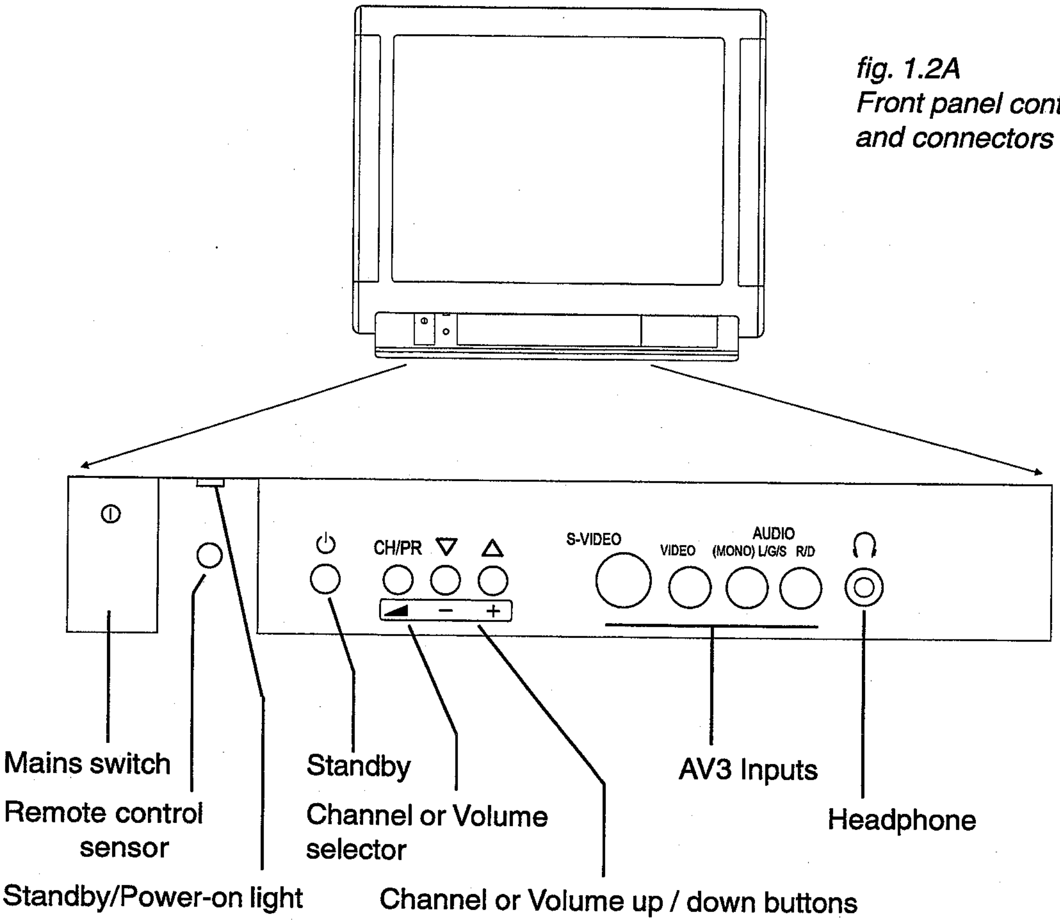

CH/PR
S-VIDEO
VIDEO
AUDIO
(MONO) L/G/S
R/D
Mains switch
Remote control sensor
Standby/Power-on light
Standby
Channel or Volume selector
Channel or Volume up / down buttons
AV3 Inputs
Headphone

fig. 1.2A
Front panel controls and connectors

1.2.2 Rear Panel

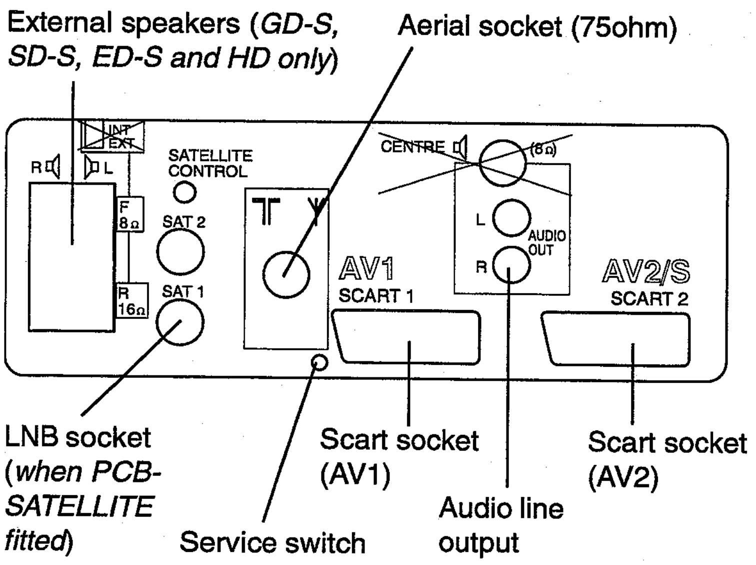
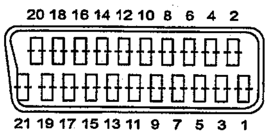

External speakers (*GD-S, SD-S, ED-S and HD only*)
Aerial socket (75ohm)
R
L
INT
EXT
F 8Ω
R 16Ω
SATELLITE CONTROL
SAT 2
SAT 1
CENTRE
(8Ω)
L
R
AUDIO OUT
AV1
SCART 1
AV2/S
SCART 2
LNB socket (*when PCB-SATELLITE fitted*)
Service switch
Scart socket (AV1)
Audio line output
Scart socket (AV2)

fig. 1.2B Rear panel connectors


20 18 16 14 12 10 8 6 4 2
21 19 17 15 13 11 9 7 5 3 1

Pin	AV1	AV2
1	Audio out – R	Audio out – R
2	Audio in – R	Audio in – R
3	Audio out – L	Audio out – L
4	Audio earth	Audio earth
5	Blue earth	Earth
6	Audio in – L	Audio in – L
7	Blue in	Not connected
8	Function switch	Function switch
9	Green earth	Earth
10	Not connected	Not connected
11	Green in	Not connected
12	Not connected	Not connected
13	Red earth	Chroma earth
14	Blanking earth	Earth
15	Red in	Chroma in
16	RGB blanking	Not connected
17	Video out earth	Video out earth
18	Video in earth	Y earth
19	Video out	Video out
20	Video in	Y in
21	Socket earth	Socket earth

fig. 1.2C Scart socket pin details

1.3 REQUIRED EQUIPMENT

1.3.1 Measuring equipment

- Oscilloscope
- Signal generator
- DC milliammeter
- DC voltmeter

1.3.2 Test signals

- PAL Crosshatch
- PAL Monoscope (or a VCR playing a monoscope alignment tape)
- PAL Colour-bar with the specification as in figure 1.3A below:

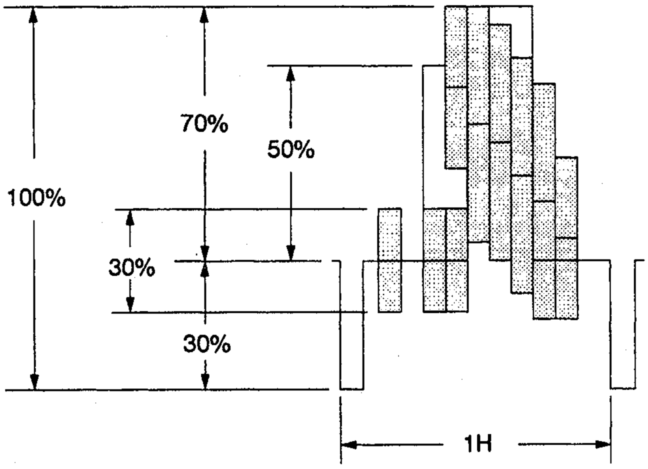

100%
70%
50%
30%
30%
30%
1H

fig. 1.3A Split-field colour bars (with 100% window)

1.4 CONNECTING LEADS

1.4.1 Identification

Connecting leads are identified by the colours of their wires according to figure 1.4A below:

Colour	**Code**
BLACK	A
BROWN	B
RED	C
ORANGE	D
YELLOW	E
GREEN	not used (earth)
BLUE	G
VIOLET	H
GREY	J
WHITE	K
PINK	L

Example:

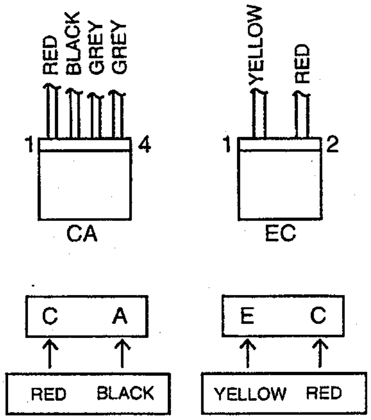

RED
BLACK
GREY
GREY
1
4
CA
YELLOW
RED
1
2
EC
C A
RED BLACK
E C
YELLOW RED

fig. 1.4A Connecting lead identification chart

1.4.2 Lead dressing

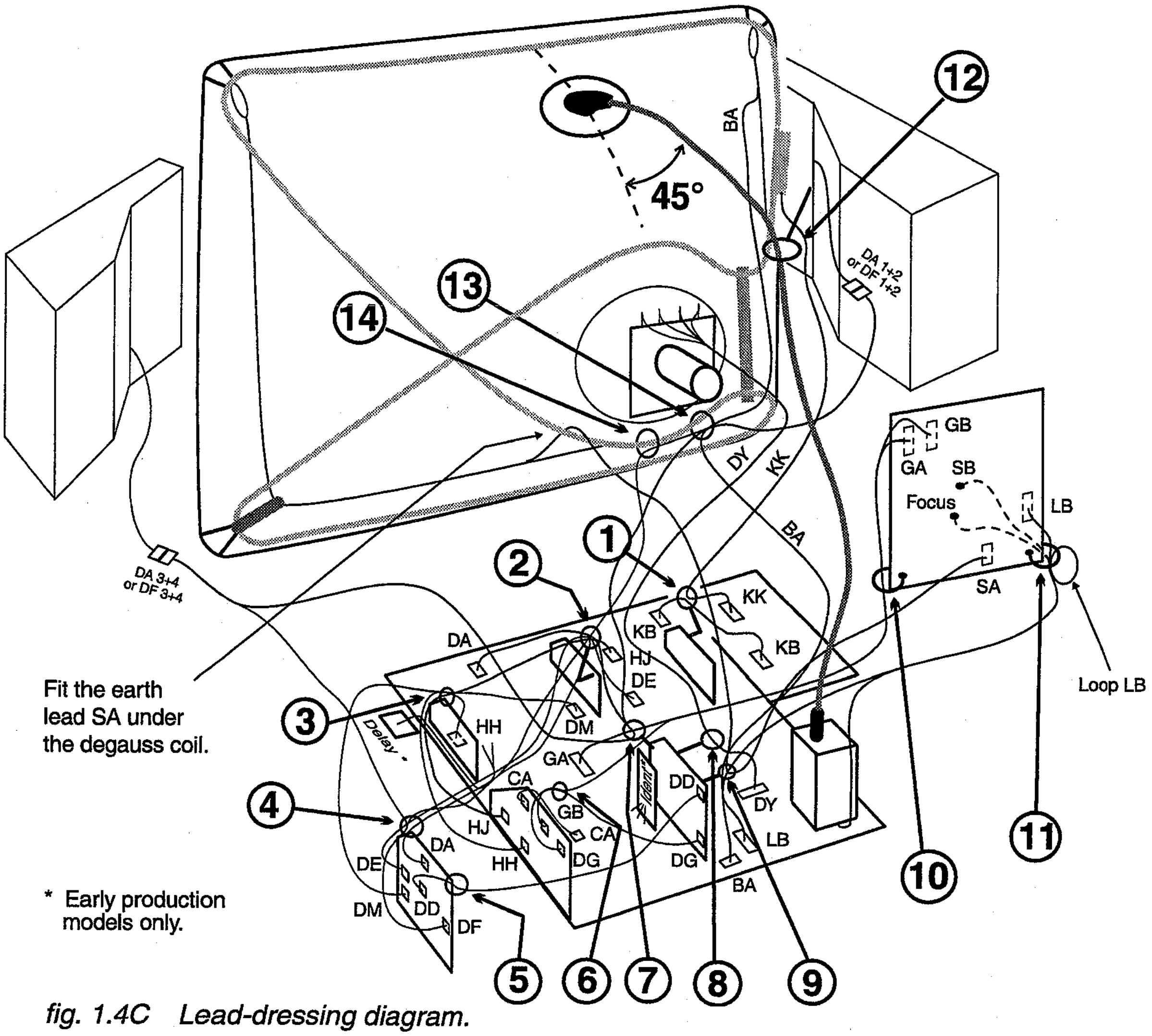
Leads must be dressed as shown in table 1.4B and the diagram (fig. 1.4C) below. The leads are routed or clamped so that they do not come close to any heat generating or high-tension parts.

The anode lead wire is routed such that no tension is applied to the anode cap. If the mounting angle of the anode cap and the route of the anode lead wires are changed, return them to the initial angle and route.

CLAMP	25AV1E/R	25AV1S-S	25AV1HD	25AV1GD-S/SD-S/ED-S
1	KB, KK	KB, KK	KB, KK	KB, KK
2	DA	DA, (HJ)*	DA	DA, (HJ)*
3		(HH), (HJ)	DM*	DM*, (HH), (HJ)
4			DA, DE	DA, DE
5			DD	DD
6		(DG), (GB)		(DG), (GB)
7	GA, DA	GA, DA	GA, DE	GA, DE
8	DY**	DY**	DY**	DY**
9	LB, SA, BA**	LB, SA, BA**	LB, SA, BA**	LB, SA, BA**
10	GA*	GA*, (GB)	GA*	GA*, (GB)
11	LB*, SB, Focus	LB*, SB, Focus	LB*, SB, Focus	LB*, SB, Focus
12	Anode lead	Anode lead	Anode lead	Anode lead
13	BA, DA	BA, DA	BA, DF	BA, DF
14	DA 1 + 2	DA 1 + 2	DF 1 + 2	DF 1 + 2

* Loop the lead in the clamper, ** Loop the lead twice in the clamper
(brackets) indicate wiring for the Satellite option.

table 1.4B Lead-dressing table.



⑫
BA
45°
DA 1+2 or DF 1+2
⑬
⑭
DY
KK
BA
GB
GA
SB
Focus
LB
SA
Loop LB
DA 3+4 or DF 3+4
①
②
KK
KB
KB
HJ
DE
DA
③
Delay
HH
DM
GA
CA
GB
CA
DD
DY
LB
BA
DG
DG
④
DA
DE
HJ
HH
DM
DD
DF
⑤
⑥
⑦
⑧
⑨
⑩
⑪

Fit the earth lead SA under the degauss coil.

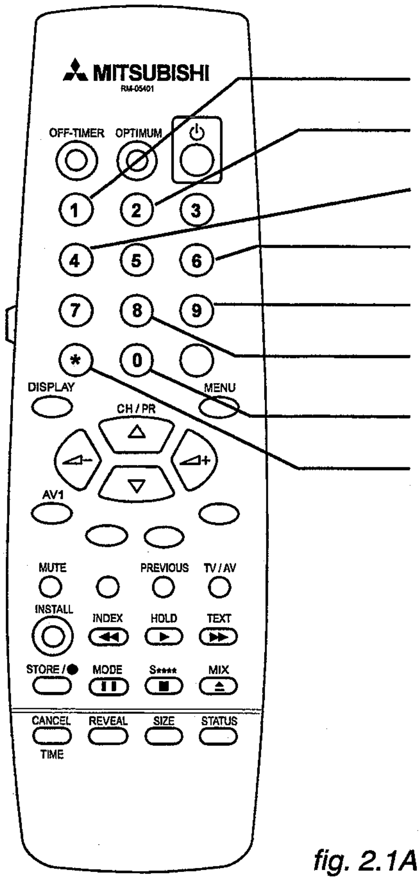
* Early production models only.

fig. 1.4C Lead-dressing diagram.

2 SERVICE ADJUSTMENT PROCEDURES

2.1 introduction

Most service adjustments to these models are made using the remote control (figure 2.1A) with the TV in service mode. The adjustment data is stored in an EEPROM.


MITSUBISHI
RM-05401
OFF-TIMER
OPTIMUM
1
2
3
4
5
6
7
8
9
*
0
DISPLAY
MENU
CH / PR
AV1
MUTE
PREVIOUS
TV / AV
INSTALL
INDEX
HOLD
TEXT
STORE / ●
MODE
S****
MIX
CANCEL
REVEAL
SIZE
STATUS
TIME

1	Cancel
2	Increase Adjustment code number
4	Decrease data value
6	Increase data value
9	Adjustment mode on
8	Decrease adjustment code number
0	Write to EEPROM
*	Toggle adjustment display

fig. 2.1A Remote Control Unit

2.1.1 Basic adjustment procedure

1. Turn the power on. With a small screwdriver, press the Service switch (S701, next to the aerial socket) and then button "9" within 5 seconds to enter service mode.
2. Press the "*" button to select either the VCJ or OPTION adjustment display (figs. 2.1B and C).

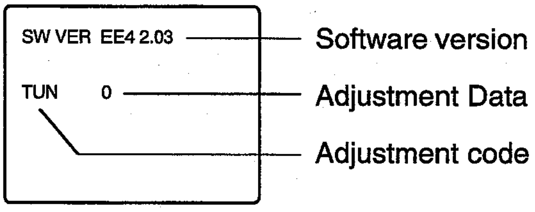

SW VER EE4 2.03
TUN 0
Software version
Adjustment Data
Adjustment code

fig. 2.1B Options adjustment display

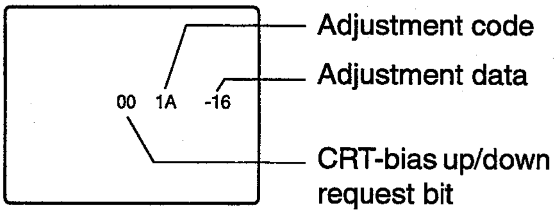

00 1A -16
Adjustment code
Adjustment data
CRT-bias up/down request bit

fig. 2.1C VCJ adjustment display

3. Press buttons "2" or "8" to increase or decrease the adjustment code number.
4. Press buttons "6" or "4" to increase or decrease the data value.
5. After completing your adjustments, press button "0" to write the adjustment data to the EEPROM.

   To cancel a change, press button "1" (or the Standby button) before writing the adjustment to the EEPROM. All data adjusted since the last EEPROM write will be reset.

2.2 INITIALISING THE EEPROM

If you have replaced the EEPROM (IC702) or if for any reason the adjustment data has become corrupted it will be necessary to initialise the EEPROM.

2.2.1 Initialising the EEPROM

1. If necessary, switch off by the Main switch.
2. Hold in the service switch (S701, next to the aerial socket) while switching on by the Main switch.
3. Release the service switch after 3 seconds.
4. Switch off by the Main switch.

   The EEPROM data values have now all been reset to their initial default values as shown in table 2.2C.
5. Switch on by the Main switch. Press the Service switch and then button "9" within 5 seconds to enter service mode.
6. Press the "✱" button to select the OPTIONS adjustment display.
7. Press buttons "2" or "8" on the remote control to select the adjustment code.
8. Adjust the data value for each code using buttons "2" or "4" on the remote control according to table 2.2A below:

   (Other adjustment codes will be displayed but need not be changed on these models.)

CODE:	TUN	SAT	AUD	ATS	STD	SYS	AVI	SPK	ABG	AI	AL	ADK	MNP	FFT	VOL	HYP	SCP	FMP
25AV1GD-S	1	0[1]	11	1	0/3[3]	2	2	1	12	08	06	08	70	0	74	1	20	23
25AV1SD-S	1	0[1]	10/12[4]	0	3/5[2]	2	2	1	12	08	06	08	70	1	74	1	20	23
25AV1ED-S	1	0[1]	11	0	3	2	2	1	12	08	06	08	70	1	74	1	20	23
25AV1HD	1	0	12	0	3	2	2	1	12	08	06	08	70	1	74	1	20	23
25AV1S-S, SN-S	1	0[1]	00/02[4]	0	3/5[2]	2	2	1	12	08	06	08	70	1	–	–	–	–
25AV1E, EN	1	0	01	0	3	2	2	1	12	08	06	08	70	1	–	–	–	–
25AV1R, RN	1	0	01	0	3	2	2	1	12	08	06	08	70	1	–	–	–	–

[1] SAT = 1 when PCB-SATELLITE is fitted

[2] SD-S, S-S and SN-S models only: STD = 3 for BG/DK (faster tuning), STD = 5 for BG/DK/I/L

[3] 0 = BG only (for early production), 3 = BG/DK – ask Mitsubishi Service Dept. for affected Serial Numbers

[4] 00 or 10 = Nicam only (for early production), 02 or 12 = Nicam + Zwieton – ask Mitsubishi Service Dept. for affected Serial Numbers

table 2.2A Data values for the OPTIONS adjustments.

9. Press the "0" button to write the changes to the EEPROM.
10. Press the "✱" button to select the VCJ adjustment display.
11. Press buttons "2" or "8" on the remote control to select the adjustment code.
12. Adjust the data value of each code using buttons "2" or "4" on the remote control according to table 2.2B below:

    (Other adjustment codes will be displayed but need not be changed on these models.)

CODE:	07	11	12	19	1B	1C
VALUE	-7	001	111	-1	-13	00

table 2.2B Data values for the VCJ adjustments.

13. Press the "0" button to write the changes to the EEPROM.

2.2.2 EEPROM Default data values.

These values are adequate to allow the set to be adjusted.

VCJ data values

CODE	FUNCTION	DATA VALUE
00	V-AMP	-16
01	V-CORRECT	-31
02	P-AMP	+05
03	TILT	-12
04	V-LIN	+23
05	C-CORRECT	-09
06	H-AMP	-22
07	16x9 - SW.RGB-MATRIX	-7
08	V-SHIFT	+02
09	H-PHASE	+10
0A	B-DRIVE	+01
0B	G-DRIVE	+01
0C	R-DRIVE	+01
0D	CONTRAST	+14
0E	BRIGHT	+01
0F	COLOUR-SAT	+10
10	NTSC-TINT	00
11	SHARP	111
12	PAL-LUMA-DELAY	111
13	SECAM-LUMA-DELAY	111
14	V-AMP-60	00
15	P-AMP	00
16	H-AMP-60	00
17	V-SHIFT-60	00
18	H-PHASE-60	00
19	H-PHASE-TEXT	00
1A	H-PHASE-SECAM	00
1B	H-PHASE-RGB	00
1C	P-AMP-16 : 9	00
1D	358NTSC-LUMA-DELAY	111
1E	443NTSC-LUMA-DELAY	111

OPTIONS data values

ITEM	DESCRIPTION		DATA VALUE
TUN	TUNER TYPE		0
SAT	SATELLITE ENABLE		0
AUD	AUDIO SYSTEM		0
ATS	AUTO TUNING SORT		0
STD	RECEPTION STANDARD		0
SYS	COLOUR SYSTEM		0
AVI	NO. OF AV INPUTS		0
AVD	AV DUBBING		–
EEX	CHASSIS TYPE		–
SPK	SPEAKER SW ENABLED		1
EEP	EEPROM SIZE		–
ABG	AGC GAIN - BG		10
AI	AGC GAIN - I		10
AL	AGC GAIN - L		10
ADK	AGC GAIN - DK		10
MNP	NICAM PRESCALE		70
TXT	TELETEXT TYPE		–
FFT	FAST / TOP TEXT		0
VOL	VOLUME PRESCALE	*	70
HYP	HYPERSOUND	*	0
SCP	SCART PRESCALE	*	1B
FMP	FM PRESCALE	*	23

* Dolby models only

table 2.2C EEPROM Default data values.

2.3 VIF CIRCUITS

2.3.1 RF-AGC

VR101 (adjacent to the tuner)

1. Connect an RF signal such as an off-air broadcast.
2. Check the AFT is on for the current channel.
3. Adjust VR101 so that the picture and sound exhibit no noise, beat or intermodulation distortion.

2.4 DEFLECTION CIRCUITS

2.4.1 Important notes

Before making any adjustments, if you have changed the CRT, FLYBACK TRANSFORMER or made any changes in the deflection circuits; adjust the CRT bias as described in 2.6.1 steps 1 ~ 6 (*Video Circuits – Screen control*).

Check the VERTICAL BREATHING CORRECTION as follows:

1. Select the VCJ adjustment display.
2. Set the adjustment code to "01" with buttons "2" or "8" on the remote control.
3. If necessary, adjust the data value to "-31" using buttons "4" or "6" on the remote control.

2.4.2 Horizontal centre

Code 09 (H-PHASE)

1. Connect a VCR and play a PAL-Monoscope alignment tape.
2. Select the VCJ adjustment display.
3. Set the adjustment code to "09" with buttons "2" or "8" on the remote control.
4. Adjust the horizontal position with buttons "4" or "6" on the remote control.

2.4.3 Horizontal width

Code 06 (H-AMP)

1. Connect a VCR and play a PAL-Monoscope alignment tape.
2. Select the VCJ adjustment display.
3. Set the adjustment code to "06" with buttons "2" or "8" on the remote control.
4. Adjust horizontal width with the buttons "4" or "6" on the remote control.

2.4.4 East-West PCC

Code 05 (CORNER CORRECTION)
Code 03 (PARABOLA TILT)
Code 02 (PARABOLA AMP)

1. Connect an RF PAL Crosshatch signal.
2. Select the VCJ adjustment display.
3. Set the adjustment code to "05" with buttons "2" or "8" on the remote control.
4. Adjust the data value to "-25" with buttons "4" or "6" on the remote control.

5. Set the adjustment code to “03” with buttons “2” or “8” on the remote control.
6. Watching the second vertical line in from both sides of the screen (figure 2.4A), make any upper and lower distortion symmetrical using buttons “4” or “6” on the remote control.
7. Set the adjustment code to “02” with buttons “2”or “8” on the remote control.
8. Adjust the straightness of both vertical lines (figure 2.4B) using buttons “4” or “6” on the remote control.
9. Repeat steps 1 to 8 above if necessary.
10. Connect a VCR and play a PAL-Monoscope alignment tape.
11. Make sure the horizontal width and horizontal centre are correct. If necessary readjust Horizontal Centre (“09”) and Horizontal Width (“06”) again.

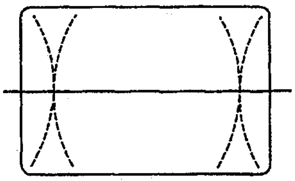


fig. 2.4A

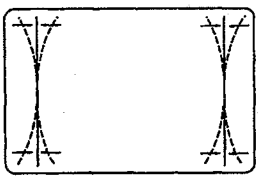


fig. 2.4B

2.4.5 Height and linearity

Code 00 (V-AMP)
Code 04 (V-LIN)

1. Connect a VCR and play a PAL-Monoscope alignment tape.
2. Select the VCJ adjustment display.
3. Set the adjustment code to “00” (V-AMP) with buttons “2” or “8” on the remote control.
4. Adjust the circle to a true circle with buttons “4” or “6” on the remote control.
5. Set the adjustment code to “04” (V-LIN) with buttons “2” or “8” on the remote control.
6. Adjust the linearity to be the same for the top and bottom halves of the circle using buttons “4” or “6” on the remote control.
7. Set the adjustment code to “00” (V-AMP) with buttons “2” or “8” on the remote control.
8. Readjust V-AMP with buttons “4” or “6”.
9. Repeat the steps above, if necessary.

2.4.6 Vertical centre

Code 08 (V-SHIFT)

1. Connect a VCR and play a PAL-Monoscope alignment tape.
2. Select the VCJ adjustment display.
3. Set the adjustment code to “08” (V-SHIFT) with buttons “2” or “8” on the remote control.
4. Adjust the centre line of picture to be within +/- 3mm from the vertical centre on the screen using buttons “4” or “6” on the remote control.

2.4.7 60Hz Deflection circuit offsets

Code 14 (V-AMP 60)
Code 15 (P-AMP 60)
Code 16 (H-AMP 60)
Code 17 (V-SHIFT 60)
Code 18 (H-PHASE 60)

1. Connect an RF 60Hz Crosshatch signal.
2. Select the VCJ adjustment display.

3. Select each adjustment code in turn with buttons “2” or “8” on the remote control and adjust each item to the figures shown in table 2.4C below using buttons “4” or “6” on the remote control.

CODE:	**14**	**15**	**16**	**17**	**18**
VALUE:	+8	+1	-2	+14	-4

table 2.4C 60Hz adjustment offsets

2.5 CRT CIRCUITS

2.5.1 White balance

Code 0A (B-DRIVE)
Code 0B (G-DRIVE)
Code 0C (R-DRIVE)

1. Connect a VCR and play a PAL-Monoscope alignment tape.
2. Select the VCJ adjustment display.
3. Set the adjustment codes to “0A”, “0B” and “0C” in turn and pre-adjust each to “+05”.
4. Adjust codes “0A” and “0C” to adjust the white balance.

2.5.2 Focus

FOCUS control on the Flyback Transformer

1. Connect an RF signal such as an off-air broadcast.
2. Adjust the FOCUS control for the best overall focus.

2.6 VIDEO CIRCUITS

Perform the following adjustments after adjusting the Deflection circuits. Allow the TV to warm up for 20 minutes before proceeding

2.6.1 Brightness and Contrast

SCREEN control on the Flyback Transformer
Code 0F (COLOUR SATURATION)
Code 0E (BRIGHTNESS)
Code 0D (CONTRAST)
BEAM CURRENT (using connector TP adjacent to the Flyback Transformer)

1. Connect an RF Crosshatch signal.
2. Select the VCJ adjustment display.
3. Make sure that the Screen Up/Down Request Bit is set to “00”. If not, adjust the SCREEN control on the Flyback Transformer.
4. Change the external signal to a Colour-bar.
5. Readjust the SCREEN control to give “00”.
6. Repeat steps 1 to 5 until the Screen Up/Down Request Bit is “00” for both signals.
7. Connect an RF Colour-bar signal.
8. Set the adjustment code to “0F” with buttons “2” or “8” on the remote control.
9. Adjust the data value to “-32” with buttons “4” or “6” on the remote control.
10. Set the adjustment code to “0E” with buttons “2” or “8” on the remote control.

11. Adjust using buttons “4” or “6” so that a slight difference in brightness can be seen between blue and black areas.
12. Set the adjustment code to “0D” with the buttons “2” or “8” on the remote control.
13. Connect a DC ammeter’s “+” lead to connector TP pin 1 on the MAIN-PCB and the “–” lead to connector TP pin 2.
14. Adjust the beam current using buttons “4” or “6” on the remote control to 1000±20µA.
15. Check, and if necessary, readjust the BRIGHTNESS, code “0E”.
16. Check that the Screen Up/Down Request Bit is “00”. If not, repeat steps 1 to 13 above.
17. Now proceed to the Colour Output adjustment.

2.6.2 Colour output

Make this adjustment only after adjusting the White Balance, Brightness and Contrast.

Code 0F (COLOUR SATURATION)

1. Connect an RF Colour-bar signal.
2. Select the VCJ adjustment display.
3. Set the adjustment code to “0F” with buttons “2” or “8” on the remote control.
4. Connect an oscilloscope to the junction of R673 and IC660 Pin 9 (BLUE-OUT) on the CRT PCB).
5. Make adjustments using buttons “4” or “6” on the remote control until the waveform is as shown in figure 2.6A.
6. Increase the resulting data value by five steps.

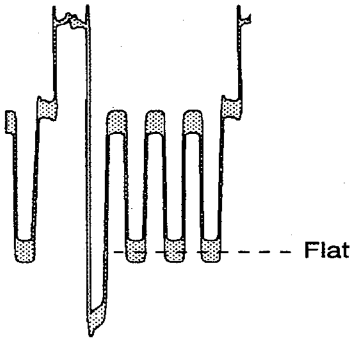


fig. 2.6A

2.7 POWER CIRCUIT

2.7.1 B4 Voltage

VR951 (on main PCB next to the SMT)

1. Connect a VCR and play a PAL-Monoscope alignment tape.
2. Push the OPTIMUM button on the remote control.
3. Connect a DC voltmeter’s “+” lead to TP91 on the MAIN PCB and the “–” lead to GROUND.
4. Adjust VR951 so that the voltage is 145±2V.

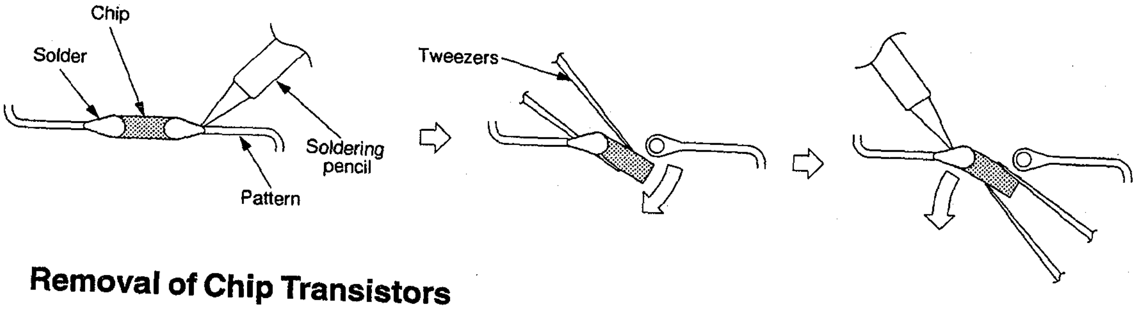
3 CHIP PARTS REPLACEMENT

Some resistors, shorting jumpers (0Ω resistor), ceramic capacitors, transistors and diodes are chip parts (i.e. surface mount or SMD parts). When replacing these parts, note the following precautions:

- Use fine tipped, well insulated soldering iron of about 30 watts and tweezers.
- Melt the solder and remove the Chip Parts carefully so as not to tear off the copper foil from the printed circuit board.
- Discard removed chips, do not re-use them.
- Do not apply heat for more than 3 seconds to new Chip Parts.
- Avoid using a rubbing action when soldering.
- Take care not to scratch or damage the Chip Parts when soldering.
- Supplementary cementing is not required.

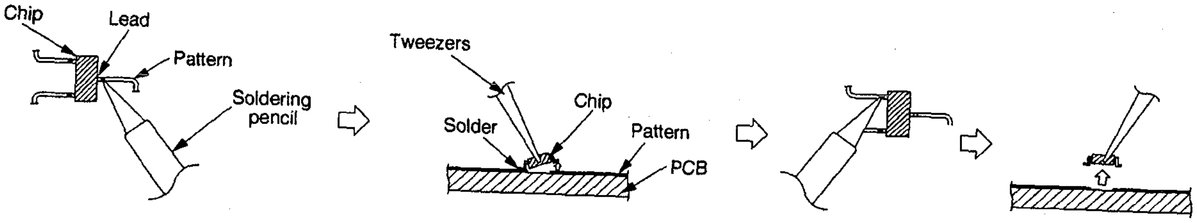
3.1 Removal of Chip Resistors, capacitors, etc.

1. Grasp the part with tweezers. Melt the solder at both sides alternately and remove the one side of the part with a twisting motion.
2. Melt the solder at the other side and remove the part.


Chip
Solder
Soldering pencil
Pattern
Tweezers

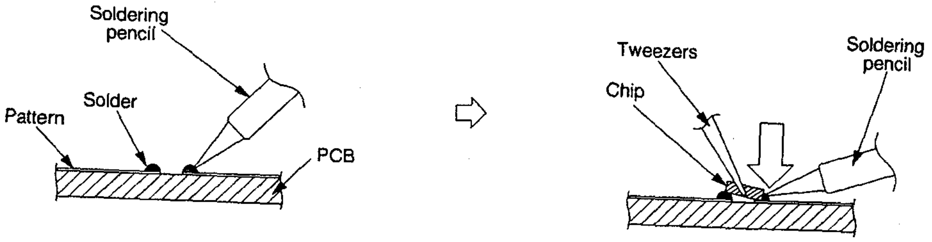
3.2 Removal of Chip Transistors

1. Melt the solder of one lead, and lift the side of that lead upward.
2. Simultaneously melt the solder of the two remaining leads and lift the part from the PCB.


Chip
Lead
Pattern
Soldering pencil
Tweezers
Chip
Solder
Pattern
PCB

3.3 Replacement

1. Pre-solder the contact points on the circuit pattern.
2. Press the part downward with tweezers and apply the soldering iron as shown in the figure.


Soldering pencil
Pattern
Solder
PCB
Tweezers
Soldering pencil
Chip

4 PARTS LIST

4.1 NOTES

4.1.1 Model-specific parts

As this service manual covers more than one model, the Service Parts List indicates where certain parts are model-specific:

CODE	MODEL
1	25AV1GD-S
2	25AV1SD-S
3	25AV1ED-S
4	25AV1HD
5	25AV1S-S
6	25AV1SN-S
7	25AV1E
8	25AV1EN
9	25AV1R
10	25AV1RN

If there is no such indication then the parts are common to *all* models covered by this manual.

4.1.2 Ordering

In order to expedite delivery of replacement parts, please specify:

1. Model number and Serial number
2. Part Number and Description
3. Quantity

Unless full information is provided a delay in execution of the order may result.

4.1.3 Safety

Safety Critical components are indicated thus: ⚠ and must only be replaced with original Mitsubishi parts.

4.1.4 Component tolerances

Component value tolerances are coded as shown in table 3.1A below.

B	C	D	F	G	J	K	M	N	V	X	Z	P	Q
±0.1	±.025	±0.5	±1	±2	±5	±10	±20	±30	+10 -10	+40 -20	+80 -20	+100 -0	+30 -10

table 3.1A Component tolerances

4.2 SERVICE PARTS LIST – TV parts, see page 23 for Satellite tuner parts

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
CRT					
⚠		255P914030	CRT	A59EAK71X11	1,2,3,4,5,7,9
⚠		H25P001010	CRT	A59ECF20X05	6, 8, 10
ICs					
IC101	MAIN	270P341020	IC	TDA4472-B	1,3,4,7,8,9,10
IC101	MAIN	270P341050	IC	TDA4470-C	2, 5, 6
IC201	MAIN	270P254010	IC	MC44031	
IC202	MAIN	270P263010	IC	TEA6415C	
IC301	SOUND/DOLBY	270P209010	IC	MSP3410	2 ~ 10
IC301	SOUND/DOLBY	270P209030	IC	MSP3400	1
IC351	MAIN	270P259010	IC	TDA7263	
IC3A1	AUDIO-POWER	270P259010	IC	TDA7263	1, 2, 3, 4
IC3A2	AUDIO-POWER	270P259010	IC	TDA7263	1, 2, 3, 4
IC3D1	DOLBY	274P682010	IC	DSP56004FJ40	1, 2, 3, 4
IC3D2	DOLBY	274P683010	IC	MCM6206DP25	1, 2, 3, 4
IC3D3	DOLBY	274P685010	IC	MC68HC05C8	1, 2, 3, 4
IC3D4	DOLBY	272P966020	IC	TDA1543	1, 2, 3, 4
IC3D5	DOLBY	270P269010	IC	MCT4558CPI	1, 2, 3, 4
IC3D6	DOLBY	270P269010	IC	MCT4558CPI	1, 2, 3, 4
IC3D7	DOLBY	263P066060	IC	HEF 4066 BP	1, 2, 3, 4
IC3D8	DOLBY	267P036030	IC	AFL87F15000E1	1, 2, 3, 4
IC3D9	DOLBY	270P355030	IC	MC7812CT	1, 2, 3, 4
IC3S1	IDENT	H27P006010	IC	TDA9845	1
IC3S2	IDENT	272P655010	IC	TA7337P	1
IC401	MAIN	270P261010	IC	TDA8171	
IC551	MAIN	272P406010	IC	TEA 2031A	
IC660	CRT	270P207010	IC-CRT-OUTPUT	TEA5101	
IC701	MAIN	274P755020	IC	9291N7B1ECN/A20	5, 6, 7, 8, 9, 10
IC701	MAIN	274P755010	IC	9291N7B1ECS/B10	1, 2, 3, 4
IC702	MAIN	274P686010	IC	ST24C08	
IC7701	TEXT	274P571030	IC	SAA5281ZP/E	1, 2, 3, 4, 5, 6
IC7701	TEXT	274P571040	IC	SAA5281ZP/H	7, 8
IC7701	TEXT	274P571060	IC	SAA5281ZP/R	9, 10
IC7702	TEXT	274P570020	IC	PCB83C654P	
IC7703	TEXT	274P171010	IC	ST24C02AB1	
IC901	MAIN	272P514010	IC	TEA 2261	
IC951	MAIN	270P260010	IC	TDA8137	
TRANSISTORS					
Q102	MAIN	260P748030	TRANSISTOR	JC501-R	
Q103	MAIN	260P748030	TRANSISTOR	JC501-R	2, 5, 6
Q105	MAIN	260P748030	TRANSISTOR	JC501-R	1,3,4,7,8,9,10
Q106	MAIN	260P749030	TRANSISTOR	JA101-Q	
Q107	MAIN	260P749030	TRANSISTOR	JA101-Q	
Q108	MAIN	260P749030	TRANSISTOR	JA101-Q	
Q251	MAIN	260P748030	TRANSISTOR	JC501-R	
Q252	MAIN	260P748030	TRANSISTOR	JC501-R	
Q253	MAIN	260P748030	TRANSISTOR	JC501-R	
Q256	MAIN	260P748030	TRANSISTOR	JC501-R	
Q2V1	DELAY	260P749030	TRANSISTOR	JA101-Q	7, 8, 9, 10

1	25AV1GD-S	**3**	25AV1ED-S	**5**	25AV1S-S	**7**	25AV1E	**9**	25AV1R
2	25AV1SD-S	**4**	25AV1HD	**6**	25AV1SN-S	**8**	25AV1EN	**10**	25AV1RN

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
Q2V2	DELAY	260P749030	TRANSISTOR	JA101-Q	7, 8, 9, 10
Q301	MAIN	260C604020	TRANSISTOR	DTC124ES	
Q302	MAIN	260C604020	TRANSISTOR	DTC124ES	
Q302	SOUND/DOLBY	260P748030	TRANSISTOR	JC501-R	
Q303	SOUND/DOLBY	260P748030	TRANSISTOR	JC501-R	
Q304	MAIN	260P748030	TRANSISTOR	JC501-R	
Q305	MAIN	260P748030	TRANSISTOR	JC501-R	
Q305	MAIN	260P749050	TRANSISTOR	JA101-Q,R	
Q306	DOLBY	260P748030	TRANSISTOR	JC501-R	1, 2, 3, 4
Q307	DOLBY	260P749030	TRANSISTOR	JA101-Q	1, 2, 3, 4
Q308	DOLBY	260P749030	TRANSISTOR	JA101-Q	1, 2, 3, 4
Q3A03	AUDIO-POWER	260C604020	TRANSISTOR	DTC124ES	1, 2, 3, 4
Q3A04	AUDIO-POWER	260C604020	TRANSISTOR	DTC124ES	1, 2, 3, 4
Q3A05	AUDIO-POWER	260C604020	TRANSISTOR	DTC124ES	1, 2, 3, 4
Q3A06	AUDIO-POWER	260C604020	TRANSISTOR	DTC124ES	1, 2, 3, 4
Q3D1	DOLBY	260P748030	TRANSISTOR	JC501-R	1, 2, 3, 4
Q3D2	DOLBY	260P748030	TRANSISTOR	JC501-R	1, 2, 3, 4
Q3D3	DOLBY	260P356010	TRANSISTOR	2SC1906	1, 2, 3, 4
Q3D4	DOLBY	260P748030	TRANSISTOR	JC501-R	1, 2, 3, 4
Q3D5	DOLBY	260P748030	TRANSISTOR	JC501-R	1, 2, 3, 4
Q3D6	DOLBY	260P748030	TRANSISTOR	JC501-R	1, 2, 3, 4
Q3D7	DOLBY	260P748030	TRANSISTOR	JC501-R	1, 2, 3, 4
Q3D8	DOLBY	260P748030	TRANSISTOR	JC501-R	1, 2, 3, 4
Q3S01	IDENT	260P543030	TRANSISTOR	JC501-R	1
Q3S02	IDENT	260C003030	TRANSISTOR	2SC2058S-Q	1
Q3S03	IDENT	260P544040	TRANSISTOR	JA101-R	1
Q3S04	IDENT	260C003030	TRANSISTOR	2SC2058S-Q	1
Q3S05	IDENT	260C003030	TRANSISTOR	2SC2058S-Q	1
Q450	MAIN	260P748030	TRANSISTOR	JC501-R	
Q451	MAIN	260P387010	TRANSISTOR	2SC2236-O,Y	
Q501	MAIN	260P748030	TRANSISTOR	JC501-R	
Q551	MAIN	260P422010	TRANSISTOR	2SC2482	
Q552	MAIN	261P007010	TRANSISTOR	S2055N	
Q6E2	CRT	260P748030	TRANSISTOR	JC501-R	
Q6E3	CRT	260P748030	TRANSISTOR	JC501-R	
Q6E4	CRT	260P748030	TRANSISTOR	JC501-R	
Q6E5	CRT	260P748030	TRANSISTOR	JC501-R	
Q6E7	CRT	260P748030	TRANSISTOR	JC501-R	
Q6E8	CRT	260C255040	TRANSISTOR	2SA950-Y (FORMED)	
Q701	MAIN	260C559050	TRANSISTOR	2SC1740S-E (FORMED)	
Q702	MAIN	260P748030	TRANSISTOR	JC501-R	
Q703	MAIN	260P749030	TRANSISTOR	JA101-Q	
Q704	MAIN	260P748030	TRANSISTOR	JC501-R	
Q705	MAIN	260P749030	TRANSISTOR	JA101-Q	
Q706	MAIN	260P749030	TRANSISTOR	JA101-Q	
Q707	MAIN	260P748030	TRANSISTOR	JC501-R	
Q708	MAIN	260P748030	TRANSISTOR	JC501-R	
Q710	MAIN	260P748030	TRANSISTOR	JC501-R	
Q711	MAIN	260P748030	TRANSISTOR	JC501-R	
Q713	MAIN	260P748020	TRANSISTOR	JC501-Q,R	
Q714	MAIN	260P748030	TRANSISTOR	JC501-R	
Q715	MAIN	260P748030	TRANSISTOR	JC501-R	

1 25AV1GD-S	**3** 25AV1ED-S	**5** 25AV1S-S	**7** 25AV1E	**9** 25AV1R
2 25AV1SD-S	**4** 25AV1HD	**6** 25AV1SN-S	**8** 25AV1EN	**10** 25AV1RN

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
Q716	MAIN	260P748030	TRANSISTOR	JC501-R	
Q901	MAIN	261P006010	TRANSISTOR	S2000N	
Q902	MAIN	260P748030	TRANSISTOR	JC501-R	
Q951	MAIN	260P748030	TRANSISTOR	JC501-R	
Q952	MAIN	260P387010	TRANSISTOR	2SC2236-O,Y	
DIODES					
D102	MAIN	264P370010	DIODE	1N4148	
D201	MAIN	264P370010	DIODE	1N4148	
D251	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D252	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D253	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D254	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D255	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D256	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D257	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D258	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D301	MAIN	264P370010	DIODE	1N4148	
D302	DOLBY	264P370010	DIODE	1N4148	1, 2, 3, 4
D303	SOUND/DOLBY	264P370010	DIODE	1N4148	
D304	DOLBY	264P370010	DIODE	1N4148	1, 2, 3, 4
D3D1	DOLBY	264P370010	DIODE	1N4148	1, 2, 3, 4
D3D2	DOLBY	264P370010	DIODE	1N4148	1, 2, 3, 4
D3D3	DOLBY	264P370010	DIODE	1N4148	1, 2, 3, 4
D401	MAIN	264P374020	DIODE	1N4003ID	
D501	MAIN	264P463020	DIODE	EQA02-08C/RD8.2 EB2	
D502	MAIN	264P370010	DIODE	1N4148	
D503	MAIN	264P371010	DIODE	BYV95B	
D504	MAIN	264P371010	DIODE	BYV95B	
D505	MAIN	264P375020	DIODE	BY228 (FORMED)	
D506	MAIN	264P378020	DIODE	BYW96E (FORMED)	
D507	MAIN	264P371010	DIODE	BYV95B	
D508	MAIN	264P371010	DIODE	BYV95B	
D509	MAIN	264P371010	DIODE	BYV95B	
D514	MAIN	264P295010	DIODE	ES 1	
D560	MAIN	264P370010	DIODE	1N4148	
D561	MAIN	264P493020	DIODE	RD39FB2	
D562	MAIN	264P370010	DIODE	1N4148	
D563	MAIN	264P370010	DIODE	1N4148	
D601	MAIN	264P370010	DIODE	1N4148	
D655	CRT	264P370010	DIODE	1N4148	
D656	CRT	264P370010	DIODE	1N4148	
D657	CRT	264P370010	DIODE	1N4148	
D6A7	CRT	264P372010	DIODE	BYV96E	
D701	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D702	MAIN	264P460020	DIODE	EQA02-05CD/RD5.1EB1	
D703	MAIN	264P461070	DIODE	EQA02-06D/RD6.2EB2	
D704	MAIN	264P370010	DIODE	1N4148	
D705	MAIN	264P370010	DIODE	1N4148	
D706	MAIN	264P465040	DIODE	EQA02-12AB/RD13EB1	
D708	MAIN	264P370010	DIODE	1N4148	
D709	MAIN	264P370010	DIODE	1N4148	
D710	MAIN	264P370010	DIODE	1N4148	

1 25AV1GD-S
2 25AV1SD-S
3 25AV1ED-S
4 25AV1HD
5 25AV1S-S
6 25AV1SN-S
7 25AV1E
8 25AV1EN
9 25AV1R
10 25AV1RN

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
D7701	TEXT	264P370010	DIODE	1N4148	
D791	LED	264P584020	DIODE-LE	SML1216W-C,D	
D901	MAIN	264P376010	DIODE	BYW56	
D902	MAIN	264P376010	DIODE	BYW56	
D903	MAIN	264P376010	DIODE	BYW56	
D904	MAIN	264P376010	DIODE	BYW56	
D905	MAIN	264P371010	DIODE	BYV95B	
D906	MAIN	264P372010	DIODE	BYV96E	
D907	MAIN	264P481060	DIODE	RD3.0FB2	
D908	MAIN	264P370010	DIODE	1N4148	
D909	MAIN	264P481060	DIODE	RD3.0FB2	
D951	MAIN	264P378020	DIODE	BYW96E (FORMED)	
D952	MAIN	264P377020	DIODE	BYW95B (FORMED)	
D953	MAIN	264P377020	DIODE	BYW95B (FORMED)	
D955	MAIN	264P461080	DIODE	EQA02-06E/RD6.2 EB3	
D956	MAIN	266P010020	IC-DIODE	µPC574J-K	
D957	MAIN	264P463080	DIODE	EQA02-09C/RD9.1EB3	
D959	MAIN	264P377020	DIODE	BYW95B (FORMED)	
D968	MAIN	264P371010	DIODE	BYV95B	1, 2, 3, 5, 6
FILTERS					
CF101	MAIN	296P084010	CERAMIC-TRAP	TPS5.5MW2	
CF102	MAIN	296P024050	CERAMIC-TRAP	TPS6.5MB	
CF3S1	IDENT	296P071020	CERAMIC-FILTER	STF5.74MA3	1
CF3S2	IDENT	296P071020	CERAMIC-FILTER	STF5.74MA3	1
CF3S3	IDENT	296P071010	CERAMIC-FILTER	STF5.5MA3	1
LC2V1	DELAY	409P307010	FILTER-Y-C		7, 8, 9, 10
SF101	MAIN	296P138010	SAW-FILTER	G1968M 38.9MHz	1, 2, 4, 5, 6
SF101	MAIN	296P144020	SAW-FILTER	OFWK3953M	3, 7, 8, 9, 10
SF301	MAIN	296P145010	SAW-FILTER	OFWK9350M	3, 7, 8, 9, 10
SF301	MAIN	H28P001010*	SAW-FILTER	SAF33,0MC70Z	1, 2, 4, 5, 6
COILS					
L101	MAIN	325C164070	COIL-PEAKING	0.47µH-J	
L102	MAIN	325C161010	COIL-PEAKING	6.8µH-K	
L103	MAIN	325C121030	COIL-PEAKING	10µH-K	
L104	MAIN	323P175040	COIL-VIF	VIF=38.9, 39.5 MHz	
L106	MAIN	325C121030	COIL-PEAKING	10µH-K	
L201	MAIN	321C031090	COIL-RF	33µH-K	
L202	MAIN	325C120090	COIL-PEAKING	4.7µH-K	
L301	SOUND/DOLBY	325C120010	COIL-PEAKING	1µH-M	
L302	SOUND/DOLBY	325C120010	COIL-PEAKING	1µH-M	
L303	SOUND/DOLBY	325C120010	COIL-PEAKING	1µH-M	
L304	SOUND/DOLBY	325C120070	COIL-PEAKING	3.3µH-K	
L305	SOUND/DOLBY	325C120070	COIL-PEAKING	3.3µH-K	
L306	MAIN	325C120070	COIL-PEAKING	3.3µH-K	
L307	MAIN	325C120070	COIL-PEAKING	3.3µH-K	
L308	MAIN	325C120070	COIL-PEAKING	3.3µH-K	
L308	SOUND/DOLBY	325C120070	COIL-PEAKING	3.3µH-K	
L309	MAIN	325C120070	COIL-PEAKING	3.3µH-K	
L309	SOUND/DOLBY	325C120070	COIL-PEAKING	3.3µH-K	
L310	MAIN	325C120070	COIL-PEAKING	3.3µH-K	
L311	MAIN	325C120070	COIL-PEAKING	3.3µH-K	

1 25AV1GD-S
2 25AV1SD-S
3 25AV1ED-S
4 25AV1HD
5 25AV1S-S
6 25AV1SN-S
7 25AV1E
8 25AV1EN
9 25AV1R
10 25AV1RN

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
L314	MAIN	325C120070	COIL-PEAKING	3.3μH-K	
L315	MAIN	325C120070	COIL-PEAKING	3.3μH-K	
L316	MAIN	325C120070	COIL-PEAKING	3.3μH-K	
L317	MAIN	325C120070	COIL-PEAKING	3.3μH-K	
L3D1	DOLBY	325C120090	COIL-PEAKING	4.7μH-K	1, 2, 3, 4
L3D10	DOLBY	325C121030	COIL-PEAKING	10μH-K	1, 2, 3, 4
L3D11	DOLBY	325C121030	COIL-PEAKING	10μH-K	1, 2, 3, 4
L3D2	DOLBY	325C120090	COIL-PEAKING	4.7μH-K	1, 2, 3, 4
L3D3	DOLBY	325C120090	COIL-PEAKING	4.7μH-K	1, 2, 3, 4
L3D4	DOLBY	325C120090	COIL-PEAKING	4.7μH-K	1, 2, 3, 4
L3D5	DOLBY	325C120090	COIL-PEAKING	4.7μH-K	1, 2, 3, 4
L3D6	DOLBY	325C120090	COIL-PEAKING	4.7μH-K	1, 2, 3, 4
L3D7	DOLBY	325C120090	COIL-PEAKING	4.7μH-K	1, 2, 3, 4
L3D8	DOLBY	325C121030	COIL-PEAKING	10μH-K	1, 2, 3, 4
L3D9	DOLBY	325C121030	COIL-PEAKING	10μH-K	1, 2, 3, 4
L3S01	IDENT	327P074010	COIL-VIF		1
L3S02	IDENT	327P079010	COIL-SIF		1
L3S03	IDENT	325C121030	COIL-PEAKING	10μH	1
L3S04	IDENT	325C121030	COIL-PEAKING	10μH	1
L401	MAIN	411P001070	LEAD-FERRITE		
L501	MAIN	409P006080	COIL-FILTER	6800μH-J	
L502	MAIN	321C030010	COIL-RF	1μH-K	
L503	MAIN	411D009020	CORE-FERRITE		
L504	MAIN	409P749010	COIL-PCC-CHOKE	15μH	
L505	MAIN	409P748010	COIL-PCC	1μH	
L551	MAIN	333P012010	COIL-HORIZ-LIN		
L701	MAIN	325C121070	COIL PEAKING	22μH-K	
L702	MAIN	325C121070	COIL PEAKING	22μH-K	
L7701	TEXT	325C120010	COIL PEAKING	1μH-M	
L7702	TEXT	325C120070	COIL PEAKING	3.3μH-K	
L901	MAIN	321C030050	COIL-RF	2.2μH-K	
L903	MAIN	411P001070	LEAD-FERRITE		
L905	MAIN	411P001070	LEAD-FERRITE		
L951	MAIN	325D059060	COIL-PEAKING	390μH-K	
L955	MAIN	321C031090	COIL-RF	33μH-K	1, 2, 3, 5, 6
L991	PWR-SUB	351P047020	LINE-FILTER		
L992	PWR-SUB	351P044010	LINE-FILTER		
L993	PWR-SUB	351P011020	LINE-FILTER		
⚠		409P564040	COIL-DEGAUSSING		
TRANSFORMERS					
⚠ T551	MAIN	334P244010	TRANS-FLYBACK		
T552	MAIN	336P017010	TRANS-HORIZ-DRIVE		
⚠ T901	MAIN	350P646010	TRANS-POWER		5, 6, 7, 8, 9, 10
⚠ T901	MAIN	350P663010	TRANS-POWER		1, 2, 3, 4
VARIABLE RESISTORS					
VR101	MAIN	127C380080	VR-SEMIFIXED	1/5W B10K-M	
VR951	MAIN	127C380090	VR-SEMIFIXED	1/5W B20K-M	
RESISTORS					
⚠ R352	MAIN	103P378060	R-FUSE	1/4W 3.3-J	
⚠ R353	MAIN	103P378060	R-FUSE	1/4W 3.3-J	

1	25AV1GD-S	**3**	25AV1ED-S	**5**	25AV1S-S	**7**	25AV1E	**9**	25AV1R
2	25AV1SD-S	**4**	25AV1HD	**6**	25AV1SN-S	**8**	25AV1EN	**10**	25AV1RN

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
⚠ R3A09	AUDIO-POWER	103P378060	R-FUSE	1/4W 3.3-J	1, 2, 3, 4
⚠ R3A10	AUDIO-POWER	103P378060	R-FUSE	1/4W 3.3-J	1, 2, 3, 4
⚠ R3A11	AUDIO-POWER	103P378060	R-FUSE	1/4W 3.3-J	1, 2, 3, 4
⚠ R3A12	AUDIO-POWER	103P378060	R-FUSE	1/4W 3.3-J	1, 2, 3, 4
R3D64	DOLBY	103P544000	R-NETWORK	1/8W 18K-Jx4	1, 2, 3, 4
⚠ R406	MAIN	103P397090	R-FUSE	1/2W 0.82-J	
R508	MAIN	102P243050	R-CEMENT-METAL-SUS	5W 6.8K-K/J	
R511	MAIN	102P229010	R-CEMENT-WIRE-SUS	10W 8.2-K/J	
⚠ R512	MAIN	103P442020	R-FUSE-METAL	1W 560-K/J	
⚠ R513	MAIN	103P398040	R-FUSE	1/2W 2.2-J	
⚠ R514	MAIN	103P397090	R-FUSE	1/2W 0.82-J	
⚠ R516	MAIN	103P397090	R-FUSE	1/2W 0.82-J	
⚠ R671	CRT	103P448040	R-FUSE-METAL	1W 2.2-K/J	1, 2, 3, 4, 5, 7, 9
⚠ R671	CRT	103P448020	R-FUSE-METAL	1W 1.5-K/J	6, 8, 10
R921	MAIN	109D074010	R-CEMENT-METAL	5W 1.8K-K/J	
⚠ R981	MAIN	109P913050	R-COMPOSITION	1/2W 6.8M-J	
⚠ R982	MAIN	109P913050	R-COMPOSITION	1/2W 6.8M-J	
R991	PWR-SUB	102P087040	R-CEMENT-WIRE	10W 4.7-K	
⚠ R992	PWR-SUB	109P911090	R-COMPOSITION	1/2W 470K-J	
CAPACITORS					
C509	MAIN	172P171060	C-M-PLASTIC-PP	1600V 0.018μF-J	
C5A3	MAIN	172P942040	C-M-PLASTIC-PP	2000V 9100pF-J	
C5B3	MAIN	172P941030	C-M-PLASTIC-PP 2000V	2000V 3300 pF-J	
C904	MAIN	185D059040	C-ELECTROLYTIC	150M-F 385V/400V	
⚠ C981	MAIN	189P091010	C-CERAMIC-AC	AC400V E4700pF-M	
⚠ C991	PWR-SUB	189P117030	C-M-POLYESTER-AC	AC275V 0.22μF-M	
SWITCHES					
S701	MAIN	432P066010	SW-KEY-BOARD		
S702	MAIN	432P066030	SW-KEY-BOARD		
S703	MAIN	432P066030	SW-KEY-BOARD		
S704	MAIN	432P066030	SW-KEY-BOARD		
S705	MAIN	432P066030	SW-KEY-BOARD		
⚠ S991	PWR-SUB	432C048010	SW-PUSH	AC250V 5A/80A	
MISCELLANEOUS					
CR5M1	MAIN	149P008010	CR-MULTIPLE	470pF 3.6M-K	
⚠ F991	PWR-SUB	283D047040	FUSE	T2A	3, 4, 7, 8, 9, 10
⚠ F991	PWR-SUB	283D091060	FUSE	T3.15AH	1, 2, 5, 6
J251	MAIN	452C080020	21 PIN-SCART		
J252	MAIN	452C080020	21 PIN-SCART		
J3A01	AUDIO-POWER	440C237020	TERMINAL-SP-8P	SPKR CONNECTOR	1, 2, 3, 4
⚠ J601	CRT	449C126010	CRT SOCKET		
⚠ PC951	MAIN	268P068010	PHOTO COUPLER	TCDT1124G	
⚠ RP991	PWR-SUB	265P071050	POSISTOR	PTH451C41BG180N	
SP391		940B630002	ASSY-SPEAKER-SYSTEM		
SP392		940B630002	ASSY-SPEAKER-SYSTEM		
TU101	MAIN	295P430020	TUNER-TV	UV1315/IEC	
X301	SOUND/DOLBY	285P225010	QUARTZ-CRYSTAL	AT-51 18.432MHz	
X3D1	DOLBY	MELX017010	QUARTZ-CRYSTAL	4MHz	1, 2, 3, 4
X3S01	IDENT	285P204020	QUARTZ-CRYSTAL	10MHz	1
X601	MAIN	285P142020	QUARTZ-CRYSTAL	17.734475MHz	
X602	MAIN	285P143020	QUARTZ-CRYSTAL	14.31818MHz	

1	25AV1GD-S	**3**	25AV1ED-S	**5**	25AV1S-S	**7**	25AV1E	**9**	25AV1R
2	25AV1SD-S	**4**	25AV1HD	**6**	25AV1SN-S	**8**	25AV1EN	**10**	25AV1RN

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
X701	MAIN	285P139040	QUARTZ-CRYSTAL	12MHz	
X7701	TEXT	285P157010	QUARTZ-CRYSTAL	27MHz/SAA5246	
⚠ Z552	MAIN	299P193010	PROTECTOR	2000	
Z701	LED	939P580020	IR-PHOTO-MODULE	TFMK 5330	
⚠ Z951	MAIN	299P193030	PROTECTOR	3150	
⚠ Z952	MAIN	299P193070	PROTECTOR	5000	
⚠ Z953	MAIN	299P193000	PROTECTOR	1600	
⚠ Z968	MAIN	299P193000	PROTECTOR	1600	1, 2, 3, 6
PCB ASSEMBLIES					
⚠		920A415019	ASSY-PCB-MAIN		7
⚠		920A424005	ASSY-PCB-MAIN		9
⚠		920A425002	ASSY-PCB-MAIN		1
⚠		920A425003	ASSY-PCB-MAIN		2
⚠		920A425004	ASSY-PCB-MAIN		3
⚠		920A425007	ASSY-PCB-MAIN		4
⚠		920A425010	ASSY-PCB-MAIN		5
⚠		920A431002	ASSY-PCB-MAIN		8
⚠		920A431006	ASSY-PCB-MAIN		6
⚠		920A431007	ASSY-PCB-MAIN		10
⚠		930C899001	ASSY-PCB-VM/CRT		4, 7, 9
⚠		930C899007	ASSY-PCB-VM/CRT		1, 2, 3, 5
⚠		930C899017	ASSY-PCB-VM/CRT		8, 10
⚠		930C899018	ASSY-PCB-VM/CRT		6
⚠		930C900001	ASSY-PCB-POWER-SUB		3, 4, 7, 8, 9, 10
⚠		930C900002	ASSY-PCB-POWER-SUB		1, 2, 5, 6
⚠		930C901001	ASSY-PCB-LED		
⚠		930C904005	ASSY-PCB-AUDIO-PWR		1, 2, 3, 4
⚠		930C909001	ASSY-PCB-TEXT		1, 2, 3, 4
⚠		930C909002	ASSY-PCB-TEXT		3, 7, 8
⚠		930C909003	ASSY-PCB-TEXT		9, 10
⚠		930C910001	ASSY-PCB-SOUND		7, 8, 9, 10
⚠		930C910004	ASSY-PCB-SOUND		5, 6
⚠		930C911003	ASSY-PCB-DOLBY		1
⚠		930C911004	ASSY-PCB-DOLBY		4
⚠		930C911005	ASSY-PCB-DOLBY		3
⚠		930C911015	ASSY-PCB-DOLBY		2
⚠		H92C002001*	ASSY-PCB-IDENT		1*
⚠		MELC534001*	ASSY-PCB-DELAY		(3, 7, 8, 9, 10)*
MECHANICAL AND COSMETIC					
⚠		246C022070	AC-POWER-CORD/PLUG		
		669D212040	SCREW 3x10 black	spkr connector fixing	1, 2, 3, 4
		669D218070	SCREW 5x30 sems	CRT fixing	
		669D220030	SCREW 3x10		
		669D221040	SCREW 4x12		
		669D221060	SCREW 4x16	back cover fixing	
⚠		700C601040	ASSY-BACK-COVER		1
⚠		700C601070	ASSY-BACK-COVER		5
⚠		700C601080	ASSY-BACK-COVER		2
⚠		700C602000	ASSY-BACK-COVER		4
⚠		700C602010	ASSY-BACK-COVER		7

* ***Early production sets only. Ask Mitsubishi Service Dept. for serial numbers affected.***

1	25AV1GD-S	**3**	25AV1ED-S	**5**	25AV1S-S	**7**	25AV1E	**9**	25AV1R
2	25AV1SD-S	**4**	25AV1HD	**6**	25AV1SN-S	**8**	25AV1EN	**10**	25AV1RN

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
⚠		700C607020	ASSY-BACK-COVER		3
⚠		700C607090	ASSY-BACK-COVER		6
⚠		700C608000	ASSY-BACK-COVER		8
⚠		700C608010	ASSY-BACK-COVER		10
⚠		700C608030	ASSY-BACK-COVER		9
		701D603010	ASSY-CABINET		7, 8
		701D603020	ASSY-CABINET		3
		701D603080	ASSY-CABINET		1
		701D604000	ASSY-CABINET		4
		701D604050	ASSY-CABINET		5, 6
		701D604060	ASSY-CABINET		2
		701D608040	ASSY-CABINET		9, 10
		752C601020	ASSY-DOOR-SAT	fixed door	1
		752C601060	ASSY-DOOR-SAT	fixed door	2 ~ 10
		752C603000	ASSY-DOOR-CONTROL		1, 2, 3, 4
		752C603010	ASSY-DOOR-CONTROL		5, 6, 7, 8, 9, 10
		754C600030	ASSY-BUTTON-POWER		
		761C550010	DOOR-CATCH	CONTROL DOOR	
		761C573010	DOOR-CLIP	FIXED DOOR	
PACKING AND ACCESSORIES					
		244D279010	SPEAKER CABLE		1, 2, 3, 4
		290P054070	REMOTE CONTOL UNIT		
		801C280020	PACKING-CASE		
		803A401010	CUSHION-SET		
		831D283010	PACKING-BAG	ACCESSORIES	
		831D296030	PACKING-BAG	TV	
		871C601000	SERVICE MANUAL		
		872C121080	IB-COLOUR		5, 6
		872C123010	IB-COLOUR		7, 8
		872C123050	IB-COLOUR		1
		872C123060	IB-COLOUR		2
		872C123070	IB-COLOUR		3
		872C123080	IB-COLOUR		4
		872C124040	IB-COLOUR		9, 10
⚠		900C104001	SATELLITE TUNER KIT	Model no. SA-95G	1, 2, 3, 5, 6
		926P035010	FRONT SURROUND SPEAKER		1, 2, 3, 4
		926P035020	REAR SURROUND SPEAKER		1, 2, 3, 4
SATELLITE TUNER (SA-95G) PARTS					**1, 2, 3, 5, 6**
ICs					
IC100	SAT	270P315010	IC SAT	STV0030	
IC101	SAT	263P053060	IC	4053BP	
IC102	SAT	263P053060	IC	4053BP	
IC104	SAT	270P355030	IC	MC7812CT	
IC105	SAT	274P681090	IC-C-MOS	ST9291J5OA/A90	
IC106	SAT	274P747010	IC-C-MOS	16K E^2PROM	
IC108	SAT	270P316010	IC REG (Includes insulator)	LM317T	
IC109	SAT	270P355010	IC	MC7805CT	
TRANSISTORS					
Q102	SAT	260P748030	TRANSISTOR	JC501-R	
Q103	SAT	260P749030	TRANSISTOR	JA101-Q	
Q104	SAT	260P748030	TRANSISTOR	JC501-R	
Q105	SAT	260P748030	TRANSISTOR	JC501-R	

1	25AV1GD-S	**3**	25AV1ED-S	**5**	25AV1S-S	**7**	25AV1E	**9**	25AV1R
2	25AV1SD-S	**4**	25AV1HD	**6**	25AV1SN-S	**8**	25AV1EN	**10**	25AV1RN

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
Q106	SAT	260P748030	TRANSISTOR	JC501-R	
Q107	SAT	260P748030	TRANSISTOR	JC501-R	
Q108	SAT	260P749030	TRANSISTOR	JA101-Q	
Q112	SAT	260P749030	TRANSISTOR	JA101-Q	
Q113	SAT	260P749030	TRANSISTOR	JA101-Q	
Q114	SAT	260P748030	TRANSISTOR	JC501-R	
Q115	SAT	260P749030	TRANSISTOR	JA101-Q	
Q116	SAT	260P748030	TRANSISTOR	JC501-R	
Q117	SAT	260P748030	TRANSISTOR	JC501-R	
Q118	SAT	260P748030	TRANSISTOR	JC501-R	
Q119	SAT	260P748030	TRANSISTOR	JC501-R	
Q120	SAT	260P748030	TRANSISTOR	JC501-R	
Q121	SAT	260P748030	TRANSISTOR	JC501-R	
Q122	SAT	260P748030	TRANSISTOR	JC501-R	
Q123	SAT	260P748030	TRANSISTOR	JC501-R	
Q124	SAT	260P748030	TRANSISTOR	JC501-R	
Q125	SAT	260P545010	TRANSISTOR	BC327	
Q126	SAT	260P748030	TRANSISTOR	JC501-R	
Q127	SAT	260P545010	TRANSISTOR	BC327	
Q128	SAT	260P545010	TRANSISTOR	BC327	
Q129	SAT	260P748030	TRANSISTOR	JC501-R	
Q130	SAT	260P748030	TRANSISTOR	JC501-R	
Q131	SAT	260P748030	TRANSISTOR	JC501-R	
Q132	SAT	260P749030	TRANSISTOR	JA101-Q	
Q135	SAT	260P748030	TRANSISTOR	JC501-R	
Q136	SAT	260P748030	TRANSISTOR	JC501-R	
Q137	SAT	260P748030	TRANSISTOR	JC501-R	
Q138	SAT	260P748030	TRANSISTOR	JC501-R	
Q139	SAT	260P748030	TRANSISTOR	JC501-R	
DIODES					
D100	SAT	264P370010	DIODE	1N4148	
D101	SAT	264P370010	DIODE	1N4148	
D102	SAT	264P370010	DIODE	1N4148	
D103	SAT	264P370010	DIODE	1N4148	
D109	SAT	264P370010	DIODE	1N4148	
D110	SAT	264P370010	DIODE	1N4148	
D111	SAT	264P370010	DIODE	1N4148	
D112	SAT	264P370010	DIODE	1N4148	
D113	SAT	264P370010	DIODE	1N4148	
COILS					
L100	SAT	325C105090	COIL-PEAKING	4.7μH-J	
L101	SAT	325C105090	COIL-PEAKING	4.7μH-J	
L103	SAT	325C120090	COIL-PEAKING	4.7μH-K	
L104	SAT	325C106060	COIL-PEAKING	18μH-J	
L105	SAT	325C106040	COIL-PEAKING	12μH-J	
RESISTORS					
R108	SAT	103P400090	R-M-CHIP	1/10W 47-J	
R109	SAT	103P400090	R-M-CHIP	1/10W 47-J	
R110	SAT	103P401030	R-M-CHIP	1/10W 100-J	
R111	SAT	103P404010	R-M-CHIP	1/10W 22K-J	
R112	SAT	103P403030	R-M-CHIP	1/10W 4.7K-J	
R113	SAT	103P404040	R-M-CHIP	1/10W 39K-J	
R114	SAT	103P404010	R-M-CHIP	1/10W 22K-J	
R115	SAT	103P404040	R-M-CHIP	1/10W 39K-J	
R116	SAT	103P403030	R-M-CHIP	1/10W 4.7K-J	
R117	SAT	103P404080	R-M-CHIP	1/10W 82K-J	
R118	SAT	103P405020	R-M-CHIP	1/10W 180K-J	
R119	SAT	103P402040	R-M-CHIP	1/10W 820-J	
R120	SAT	103P405020	R-M-CHIP	1/10W 180K-J	
R121	SAT	103P404080	R-M-CHIP	1/10W 82K-J	
R122	SAT	103P406000	R-M-CHIP	1/10W 820K-J	

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
R123	SAT	103P402040	R-M-CHIP	1/10W 820-J	
R126	SAT	103P406020	R-M-CHIP	1/10W 1.2M-J	
R127	SAT	103P404090	R-M-CHIP	1/10W 100K-J	
R128	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R129	SAT	103P404080	R-M-CHIP	1/10W 82K-J	
R130	SAT	103P403060	R-M-CHIP	1/10W 8.2K-J	
R131	SAT	103P404000	R-M-CHIP	1/10W 18K-J	
R132	SAT	103P404090	R-M-CHIP	1/10W 100K-J	
R133	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R134	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R135	SAT	103P406000	R-M-CHIP	1/10W 820K-J	
R136	SAT	103P402050	R-M-CHIP	1/10W 1K-J	
R137	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R138	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R139	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R140	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R142	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R143	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R144	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R145	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R146	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R147	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R148	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R149	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R150	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R151	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R152	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R153	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R154	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R155	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R156	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R157	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R158	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R159	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R160	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R161	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R162	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R163	SAT	103P404050	R-M-CHIP	1/10W 47K-J	
R164	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R165	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R166	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R167	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R168	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R169	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R170	SAT	103P401000	R-M-CHIP	1/10W 56-J	
R171	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R180	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R181	SAT	103P403030	R-M-CHIP	1/10W 4.7K-J	
R183	SAT	103P402040	R-M-CHIP	1/10W 820-J	
R184	SAT	MELX048010	R-M-CHIP	1/10W 6.2K-J	
R185	SAT	103P403080	R-M-CHIP	1/10W 12K-J	
R186	SAT	103P402020	R-M-CHIP	1/10W 560-J	
R187	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R188	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R189	SAT	103P402040	R-M-CHIP	1/10W 820-J	
R190	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R191	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R192	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R193	SAT	103P402020	R-M-CHIP	1/10W 560-J	
R194	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R195	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R196	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R197	SAT	103P401090	R-M-CHIP	1/10W 330-J	

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
R199	SAT	103P401030	R-M-CHIP	1/10W 100-J	
R200	SAT	103P401030	R-M-CHIP	1/10W 100-J	
R201	SAT	103P401030	R-M-CHIP	1/10W 100-J	
R203	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R204	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R206	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R207	SAT	103P403000	R-M-CHIP	1/10W 2.7K-J	
R208	SAT	103P403000	R-M-CHIP	1/10W 2.7K-J	
R209	SAT	103P409050	R-M-CHIP	1/10W 0OHM	
R210	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R211	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R212	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R213	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R214	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R215	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R216	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R217	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R218	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R219	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R220	SAT	103P404020	R-M-CHIP	1/10W 27K-J	
R221	SAT	103P403050	R-M-CHIP	1/10W 6.8K-J	
R222	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R223	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R224	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R225	SAT	103P402000	R-M-CHIP	1/10W 390-J	
R226	SAT	103P402010	R-M-CHIP	1/10W 470-J	
R227	SAT	103P404040	R-M-CHIP	1/10W 39K-J	
R228	SAT	103P404020	R-M-CHIP	1/10W 27K-J	
R229	SAT	103P403030	R-M-CHIP	1/10W 4.7K-J	
R230	SAT	103P901090	R-METAL	0.4W 560-F	
R231	SAT	103P902040	R-METAL	0.4W 910-F	
R232	SAT	MELX049010	R-METAL	1/4W 1.4K-F	
R233	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R234	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R235	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R236	SAT	103P900090	R-METAL	0.4W 220-F	
R239	SAT	103P402050	R-M-CHIP	1/10W 1K-J	
R240	SAT	103P404010	R-M-CHIP	1/10W 22K-J	
R241	SAT	103P403090	R-M-CHIP	1/10W 15K-J	
R242	SAT	103P403090	R-M-CHIP	1/10W 15K-J	
R245	SAT	103P402050	R-M-CHIP	1/10W 1K-J	
R246	SAT	103P404010	R-M-CHIP	1/10W 22K-J	
R247	SAT	103P404010	R-M-CHIP	1/10W 22K-J	
R248	SAT	103P404010	R-M-CHIP	1/10W 22K-J	
R249	SAT	103P404090	R-M-CHIP	1/10W 100K-J	
R250	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R251	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R252	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R253	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R260	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R261	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R262	SAT	103P401090	R-M-CHIP	1/10W 330-J	
R263	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R264	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R265	SAT	103P401070	R-M-CHIP	1/10W 220-J	
R266	SAT	103P403070	R-M-CHIP	1/10W 10K-J	
R267	SAT	103P401030	R-M-CHIP	1/10W 100-J	
R268	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R270	SAT	103P402060	R-M-CHIP	1/10W 1.2K-J	
R271	SAT	103P402090	R-M-CHIP	1/10W 2.2K-J	
R272	SAT	103P404000	R-M-CHIP	1/10W 18K-J	
R273	SAT	103P403070	R-M-CHIP	1/10W 10K-J	

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
CAPACITORS					
C101	SAT	141P131050	C-CERAMIC-CHIP	CK50V 3300P-K	
C102	SAT	141P131030	C-CERAMIC-CHIP	CK50V 2200P-K	
C103	SAT	141P131050	C-CERAMIC-CHIP	CK50V 3300P-K	
C105	SAT	141P131030	C-CERAMIC-CHIP	CK50V 2200P-K	
C106	SAT	154P331090	C-CERAMIC-CHIP	CK50V 22P-J	
C107	SAT	141P133080	C-CERAMIC-CHIP	CK50V 0.01M-K	
C108	SAT	141P133080	C-CERAMIC-CHIP	CK50V 0.01M-K	
C109	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C110	SAT	141P133080	C-CERAMIC-CHIP	CK50V 0.01M-K	
C111	SAT	154P333010	C-CERAMIC-CHIP	CK50V 68P-J	
C112	SAT	154P332050	C-CERAMIC-CHIP	CK50C 39P-J	
C113	SAT	154P333010	C-CERAMIC-CHIP	CK50V 68P-J	
C114	SAT	154P331090	C-CERAMIC-CHIP	CK50V 22P-J	
C115	SAT	141P133080	C-CERAMIC-CHIP	CK50V 0.01M-K	
C116	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C118	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C119	SAT	141P135080	C-CERAMIC-CHIP	25V 0.1M-Z	
C121	SAT	141P137040	C-CERAMIC-CHIP	B50V 0.022M-Z	
C122	SAT	154P335010	C-CERAMIC-CHIP	CK50V 470P-J	
C123	SAT	141P137080	C-CERAMIC-CHIP	B50V 0.047M-K	
C124	SAT	141P130010	C-CERAMIC-CHIP	CK50V 220P-J	
C125	SAT	154P335010	C-CERAMIC-CHIP	CK50V 470P-J	
C126	SAT	141P132010	C-CERAMIC-CHIP	B50V 0.01M-K	
C127	SAT	154P331090	C-CERAMIC-CHIP	CK50V 22P-J	
C128	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C129	SAT	154P332070	C-CERAMIC-CHIP	CK50C 47P-J	
C131	SAT	141P135080	C-CERAMIC-CHIP	25V 0.1M-Z	
C132	SAT	141P135000	C-CERAMIC-CHIP	25V 0.22M-Z	
C147	SAT	154P333010	C-CERAMIC-CHIP	CK50C 68P-J	
C152	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C153	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C157	SAT	154P333010	C-CERAMIC-CHIP	CK50V 68P-J	
C158	SAT	154P333010	C-CERAMIC-CHIP	CK50V 68P-J	
C159	SAT	154P331030	C-CERAMIC-CHIP	CK50V 12P-J	
C160	SAT	154P333050	C-CERAMIC-CHIP	CK50V 100P-J	
C161	SAT	154P332070	C-CERAMIC-CHIP	CK50C 47P-J	
C163	SAT	154P332090	C-CERAMIC-CHIP	CK50V 56P-J	
C166	SAT	154P331010	C-CERAMIC-CHIP	CH50V 10P-C	
C167	SAT	154P333070	C-CERAMIC-CHIP	CK50V 120P-J	
C169	SAT	154P332070	C-CERAMIC-CHIP	CK50C 47P-J	
C170	SAT	141P133080	C-CERAMIC-CHIP	CK50V 0.01M-K	
C171	SAT	141P132030	C-CERAMIC-CHIP	B50V 0.015M-K	
C172	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C174	SAT	154P331090	C-CERAMIC-CHIP	CK50V 22P-J	
C175	SAT	154P331090	C-CERAMIC-CHIP	CK50V 22P-J	
C176	SAT	141P130010	C-CERAMIC-CHIP	CK50V 220P-J	
C177	SAT	141P131030	C-CERAMIC-CHIP	CK50V 2200P-K	
C179	SAT	154P334030	C-CERAMIC-CHIP	CK50V 220P-J	
C181	SAT	141P132010	C-CERAMIC-CHIP	B50V 0.01M-K	
C182	SAT	141P133080	C-CERAMIC-CHIP	CK50V 0.01M-K	
C193	SAT	141P133080	C-CERAMIC-CHIP	CK50V 0.01M-K	
C194	SAT	141P133080	C-CERAMIC-CHIP	CK50V 0.01M-K	
C195	SAT	141P130010	C-CERAMIC-CHIP	CK50V 220P-J	
C196	SAT	141P130030	C-CERAMIC-CHIP	CK50V 330P-K	
C197	SAT	154P331030	C-CERAMIC-CHIP	CK50V 12P-J	
C198	SAT	154P331030	C-CERAMIC-CHIP	CK50V 12P-J	
C199	SAT	141P131030	C-CERAMIC-CHIP	CK50V 2200P-K	
C241	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C242	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	
C244	SAT	141P139030	C-CERAMIC-CHIP	B25V 0.1M-K	

SYMBOL	PCB	PART No	PART NAME	DESCRIPTION	MODELS
MISCELLANEOUS					
SK100	SAT	451C129020	JACK-MICROPHONE	YKB21-5129	
TU100	SAT	295P432010	TUNER-SAT	25BSFK77G21	
XT100	SAT	MELX017010	CRYSTAL	4MHz	
XT101	SAT	285P139040	QUARTZ-CRYSTAL	12MHz	

5 SCHEMATIC DIAGRAMS

5.1 SERVICING PRECAUTIONS

The ⚠ symbol indicates components with characteristics critical to safety and performance.

These parts **must** only be replaced with parts having identical values and characteristics – refer to the Service Parts List for the correct Mitsubishi part numbers.

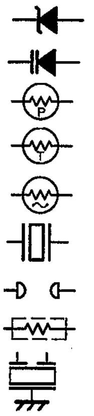
Do not compromise the safety of the receiver by improper servicing.

5.2 GENERAL NOTES

- DC voltages are measured from the points indicated to circuit ground.
- Waveforms are for a PAL colour bar signal.
- Test Points are shown as: "TP6A", etc.
- This is a basic circuit diagram – receivers are subject to modification due to continuous engineering improvement.

5.3 COMPONENT INFORMATION

SPECIFIC SYMBOLS



Zener diode

Varicap

Posistor

Thermistor

Fusible resistor

Crystal

Air gap

Part (e.g. resistor) on copper side of PCB

Ceramic filter

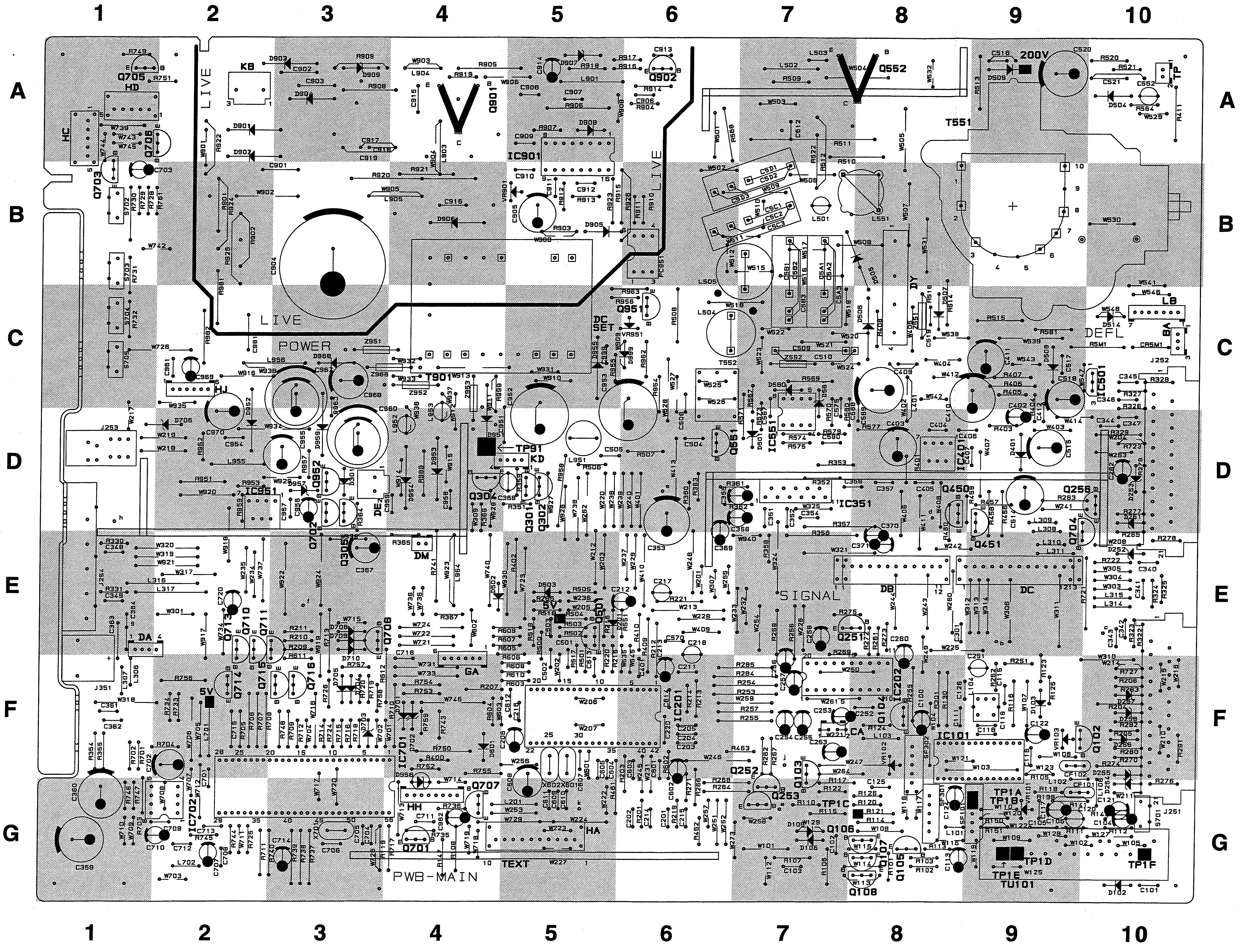
RESISTORS

Value	without spec.	Ω, K = KΩ, M = MΩ
Wattage	without spec.	1/4W or 1/6W (chips: 1/10W)
Tolerance	without spec.	±5%
	D = ±0.5%, F = ±1%, J = ±5%, K = ±10%,	
Type	without spec.	Carbon film
	(S)	Composition
	(MB)	Metal oxide film
	(CE)	Cemented
	(W)	Wire wound
	(M)	Metal film
	(MPC)	Metal plate cement
	(ML)	Metal linear

CAPACITORS

Value	without spec.	pF for values >1, µF for values <1
Voltage	without spec.	50V
Tolerance	without spec.	electrolytic: ±20%, others ±10%
	G = ±2%, J = ±5%, K = ±10%, M = ±20%, P = +100 –0%, Z = +80 –20%, Q = +30 –10%, T = +200 –0%, C = ±0.25pF, D = ±0.5, F = ± 1pF, G = ±2pF	
Type	without spec.	Ceramic
	(MF)	Polyester
	(PP)	Polypropylene film
	(ALM)	Aluminus electrolytic
	(TF)	Twin film
	(SC)	Semiconductor ceramic
	(MP)	Metalised paper
	(MPP)	Metalised plastic film
	(MMF)	Metalised polyester
	(MF.PP)	Polyester/polypropylene film
	(PS)	Polystyrene (styrol)
	(TAN) or (TANT)	Tantalum
	⊣⁺⊢	Electrolytic
	(BP) or (NP)	Non-polarised electrolytic
Characteristic	(only ceramic capacitors)	
	without spec.	B or F (high dielectric)
	CH, SL, etc.	Temperature compensating types

PCB-MAIN (AV1 series)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10
A
B
C
D
E
F
G
LIVE
POWER
DC SET
SIGNAL
DEFL
PWB-MAIN
TEXT
KB
HD
HC
HJ
T901
T551
T552
DY
LB
BA
DB
DC
DA
DM
GA
HA
HH
KD
TP91
200V
IC901
IC951
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IC351
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IC701
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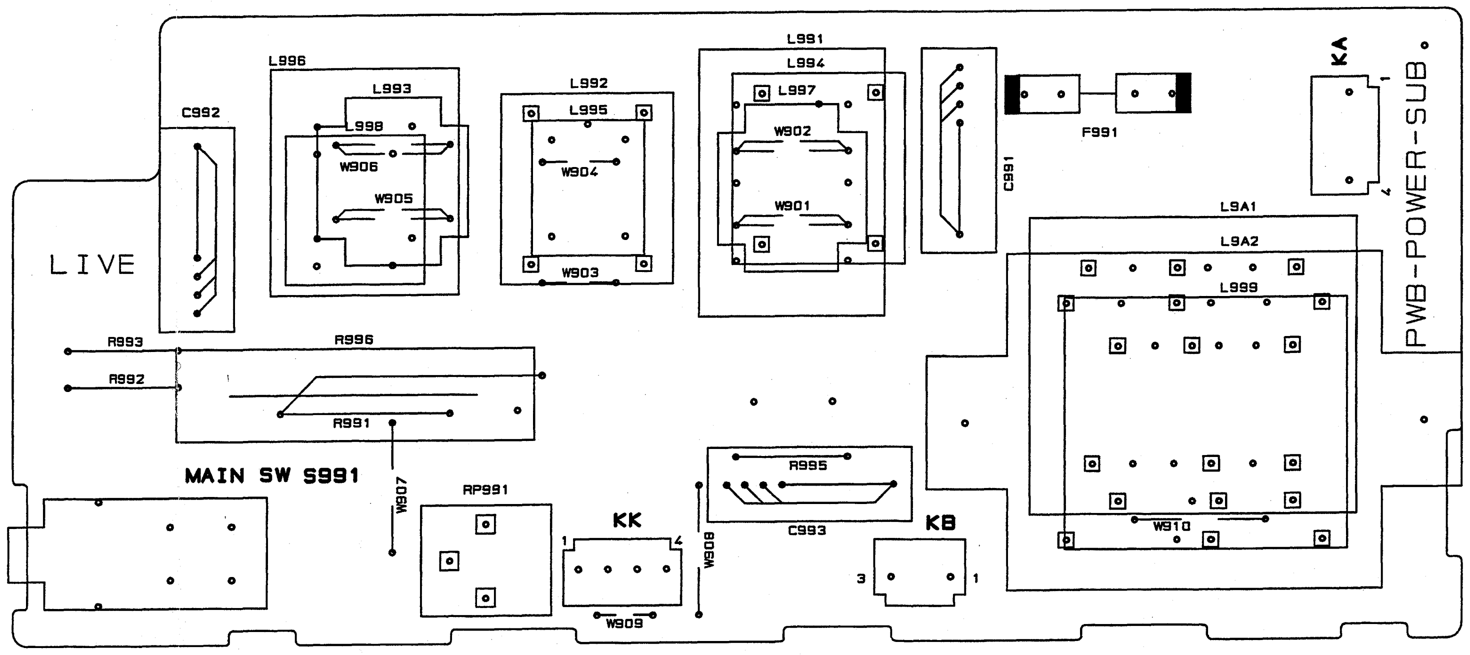
Q951
Q952
Q705
Q706
Q703
Q702
Q304
Q301
Q302
Q305
Q551
Q450
Q451
Q256
Q704
Q251
Q252
Q253
Q103
Q104
Q105
Q106
Q107
Q108
Q102
Q701
Q707
Q708
Q710
Q711
Q713
Q714
Q715
Q716
Q501
TP1A
TP1B
TP1C
TP1D
TP1E
TP1F
TU101
J251
J252
J253
J254
J351
5V
CA

MAIN PCB COMPONENT ADDRESSES

C509	C7
C5A1	B7
C5A2	B7
C5A3	C7
C5B1	B7
C5B2	B7
C5B3	C7
C5C1	B7
C5C2	B7
C5C3	B7
C5D1	B7
C5D2	B7
C5D3	B6
C904	B3
C981	C2
CF101	G9
CF102	F9
CR5M1	C10
D102	G10
D103	F9
D105	G7
D106	G7
D201	E6
D251	D10
D252	E10
D253	D10
D254	G10
D255	F10
D256	F10
D257	F10
D258	F10
D301	D3
D401	D9
D501	D7
D502	E4
D503	E5
D504	A10
D505	B9
D506	C8
D507	C8
D508	C9
D509	A9
D514	C10
D560	C7
D561	C7
D601	F4
D701	F4
D702	F4
D703	F3
D704	F3
D705	F3
D706	D2
D708	E3
D709	E3
D710	E3
D901	A2
D902	A2
D903	A3
D904	A3
D905	B5
D906	B4
D907	A5
D908	A5
D909	A3
D951	D4
D952	D2
D953	D4
D954	D4
D955	C5
D956	G4
D957	D3
D959	D3
D968	C3
D999	C6
IC101	F9
IC201	F6
IC202	F8
IC351	D7
IC401	D8
IC501	C10
IC551	D7
IC701	F4
IC702	G2
IC901	A5
IC951	D2
J251	G10
J252	C10
J253	D1
J254	E1
J351	F1
L101	G8
L102	G9
L103	F8
L104	F9
L106	G10
L201	G5
L306	F1
L307	F1
L308	D9
L309	D9
L310	E9
L311	E9
L314	E10
L315	E10
L316	E2
L317	E2
L401	C8
L501	B7
L502	A7
L503	A7
L504	C6
L505	B6
L551	B8
L701	F2
L702	G2
L901	A5
L903	A4
L904	A4
L905	B4
L951	D5
L952	D4
L953	D4
L954	E4
L955	D2
L956	C3
PC951	B6
Q102	F10
Q103	F7
Q104	F8
Q105	G8
Q106	G8
Q107	G8
Q108	G7
Q251	E8
Q252	G7
Q253	G7
Q256	D10
Q301	D5
Q302	D5
Q304	D4
Q305	D3
Q450	D8
Q451	D9
Q501	E5
Q551	D6
Q552	A8
Q701	G4
Q702	D3
Q703	B1
Q704	D10
Q705	A1
Q706	A1
Q707	G4
Q708	E3
Q710	E2
Q711	E2
Q713	E2
Q714	F2
Q715	F3
Q716	F3
Q901	A4
Q902	A6
Q951	C6
Q952	D3
R352	D7
R353	D7
R406	C9
R508	C6
R511	A7
R512	A7
R513	A9
R514	C8
R516	C8
R573	D7
R574	D7
R575	D7
R5M1	C10
R921	B4
R954	C6
R955	C5
R981	C2
R982	C2
S701	G10
S702	B1
S703	B1
S704	C1
S705	C1
SF101	G9
SF301	G8
SF302	F8
T551	A8
T552	C6
T901	C4
TU101	G9
VR101	G9
VR102	F8
VR103	F9
VR901	B5
VR951	C6
X601	F5
X602	F5
X701	G3
Z551	C8
Z552	C7
Z951	C3
Z952	C4
Z953	C4
Z968	C3


LIVE
C992
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L993
L998
W906
W905
L992
L995
W904
W903
L991
L994
L997
W902
W901
C991
F991
KA
PWB-POWER-SUB
L9A1
L9A2
L999
R993
R992
R996
R991
MAIN SW S991
W907
RP991
KK
W909
W908
R995
C993
KB
W910

PCB POWER SUB

C991
C993
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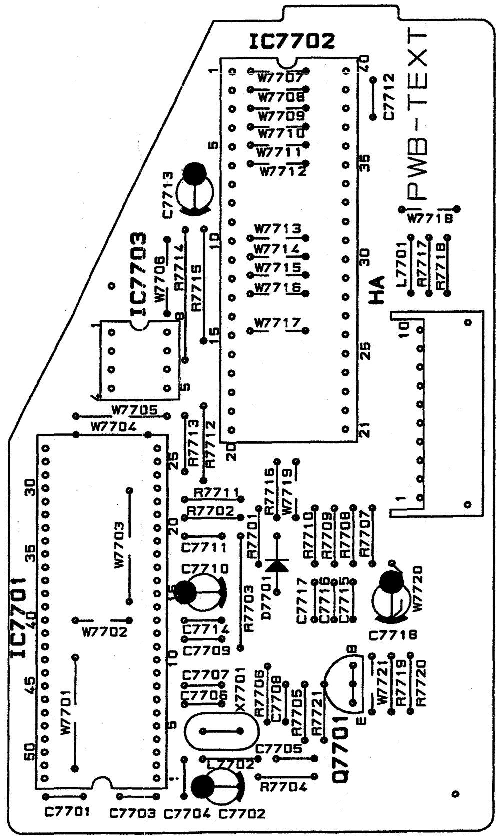
R993
RP991
S991

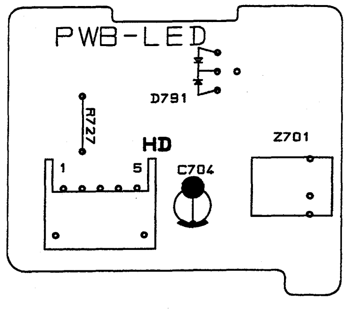

IC7702
PWB-TEXT
IC7703
IC7701
Q7701
HA
W7707
W7708
W7709
W7710
W7711
W7712
W7713
W7714
W7715
W7716
W7717
W7718
C7712
C7713
W7705
W7704
W7703
W7702
W7701
C7701
C7703
C7704
C7702
R7711
R7702
C7711
C7710
C7714
C7709
C7707
C7708
X7701
D7701
C7705
L7702
R7704
C7718
W7720

PCB TEXT

IC7701
IC7702
Q7701
D7701
L7701
L7702
X7701

PCB LED

D791
Z701

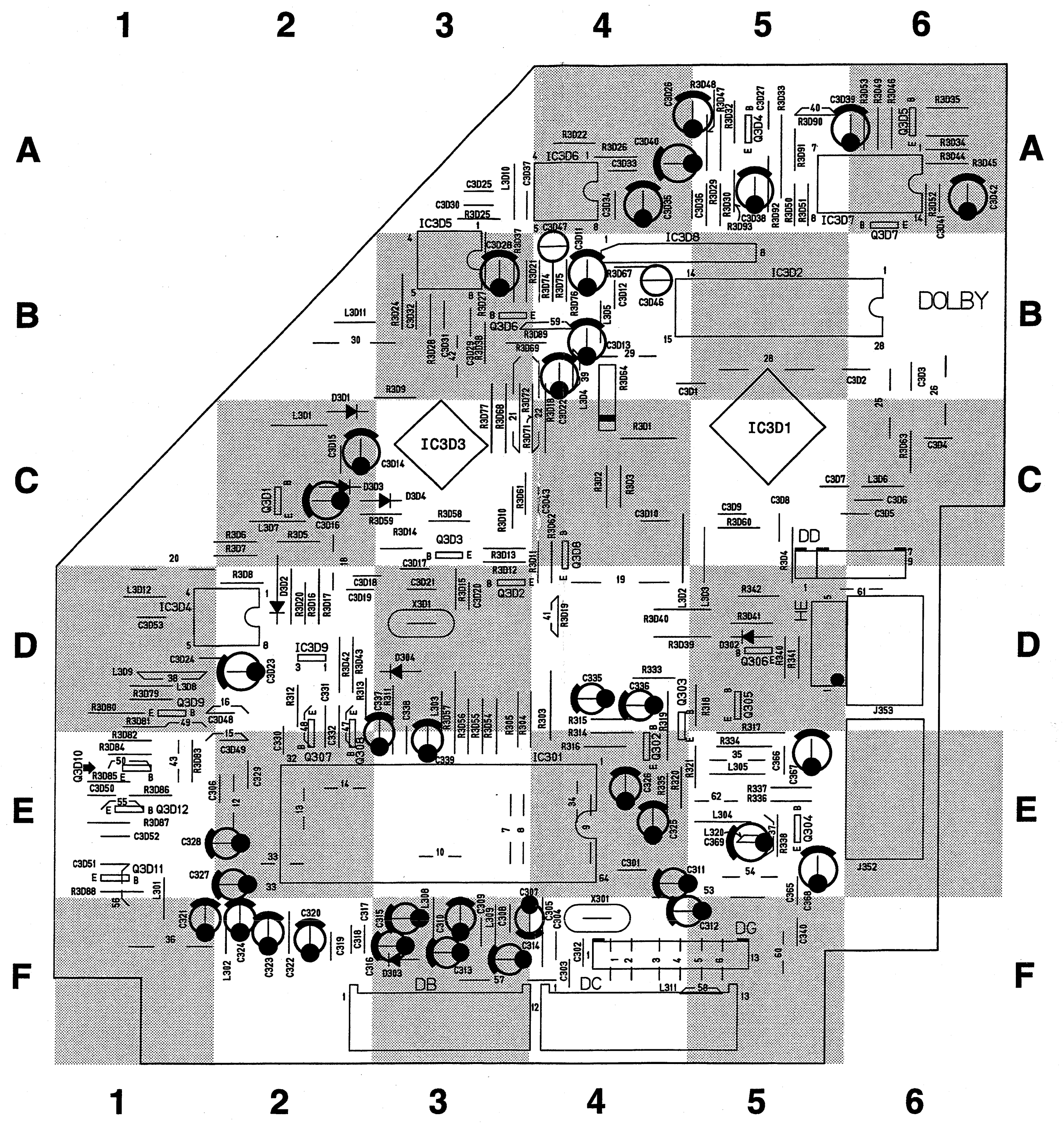

PWB-LED
D791
R727
HD
Z701
C704

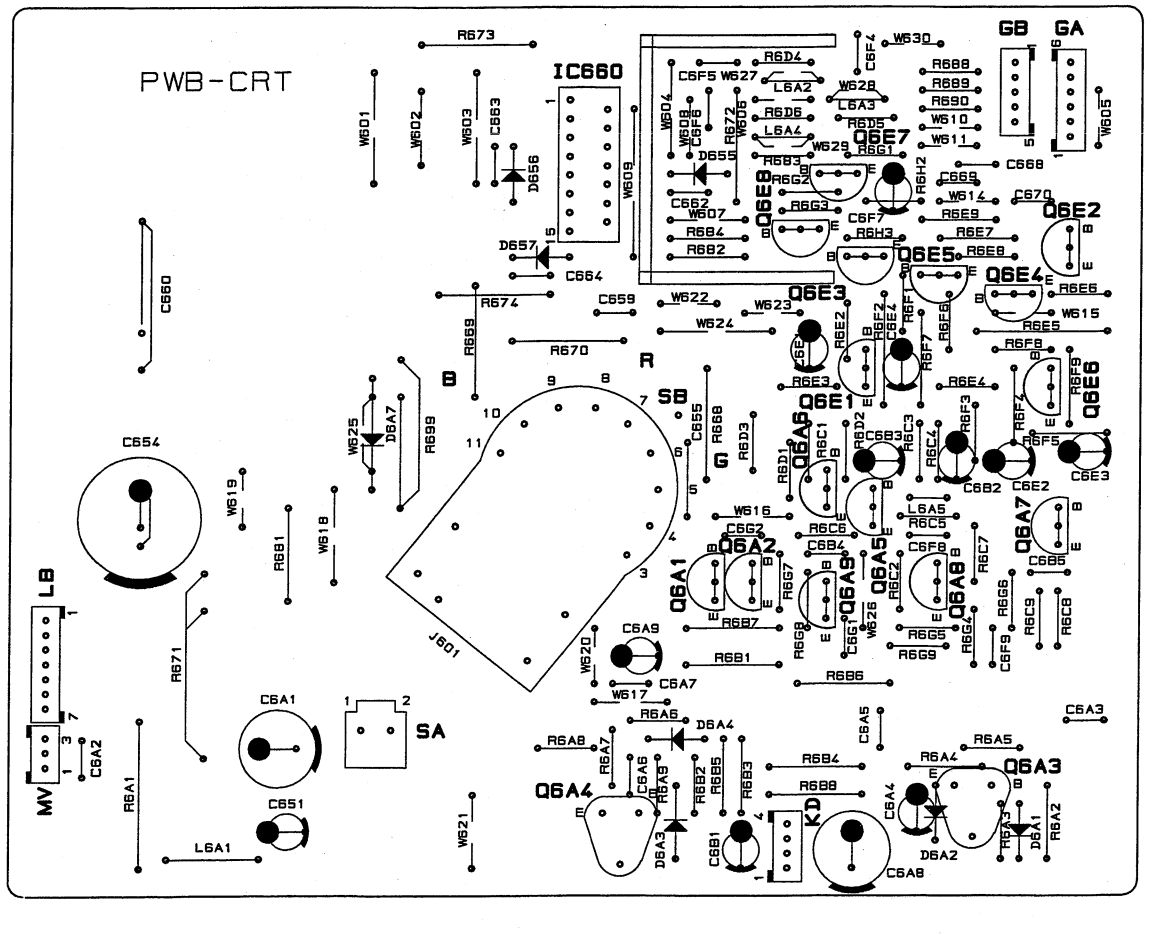
PCB DOLBY ADDRESSES

D302	D5	L303	D5	Q304	E5
D303	F3	L304	E5	Q305	D5
D304	D3	L305	E5	Q306	D5
D3D1	C2	L308	F3	Q307	E2
D3D2	D2	L309	F3	Q308	E2
D3D3	C2	L311	F4	Q3D1	C2
D3D4	C3	L320	E5	Q3D10	E1
IC301	E4	L3D1	C2	Q3D11	E1
IC3D1	C5	L3D10	A3	Q3D12	E1
IC3D2	B5	L3D11	B2	Q3D2	D3
IC3D3	C3	L3D12	D1	Q3D3	C3
IC3D4	D1	L3D2	D4	Q3D4	A5
IC3D5	B3	L3D4	B4	Q3D5	A6
IC3D6	A4	L3D5	B4	Q3D6	B3
IC3D7	A5	L3D6	C6	Q3D7	A6
IC3D8	B4	L3D7	C2	Q3D8	C4
IC3D9	D2	L3D8	D1	Q3D9	D1
L301	E1	L3D9	D1	X301	F4
L302	F2	Q302	E4	X3D1	D3
L303	D3	Q303	D4		

PCB CRT

D655
D656
D657
IC660
J601
R671
D6A1
D6A2
D6A3
D6A4
D6A7
L6A1
L6A2
L6A3
L6A4
L6A5
Q6A1
Q6A2
Q6A3
Q6A4
Q6A5
Q6A6
Q6A7
Q6A8
Q6A9
Q6E1
Q6E2
Q6E3
Q6E4
Q6E5
Q6E6
Q6E7
Q6E8
R6B4
R6B6
R6B7
R6B8

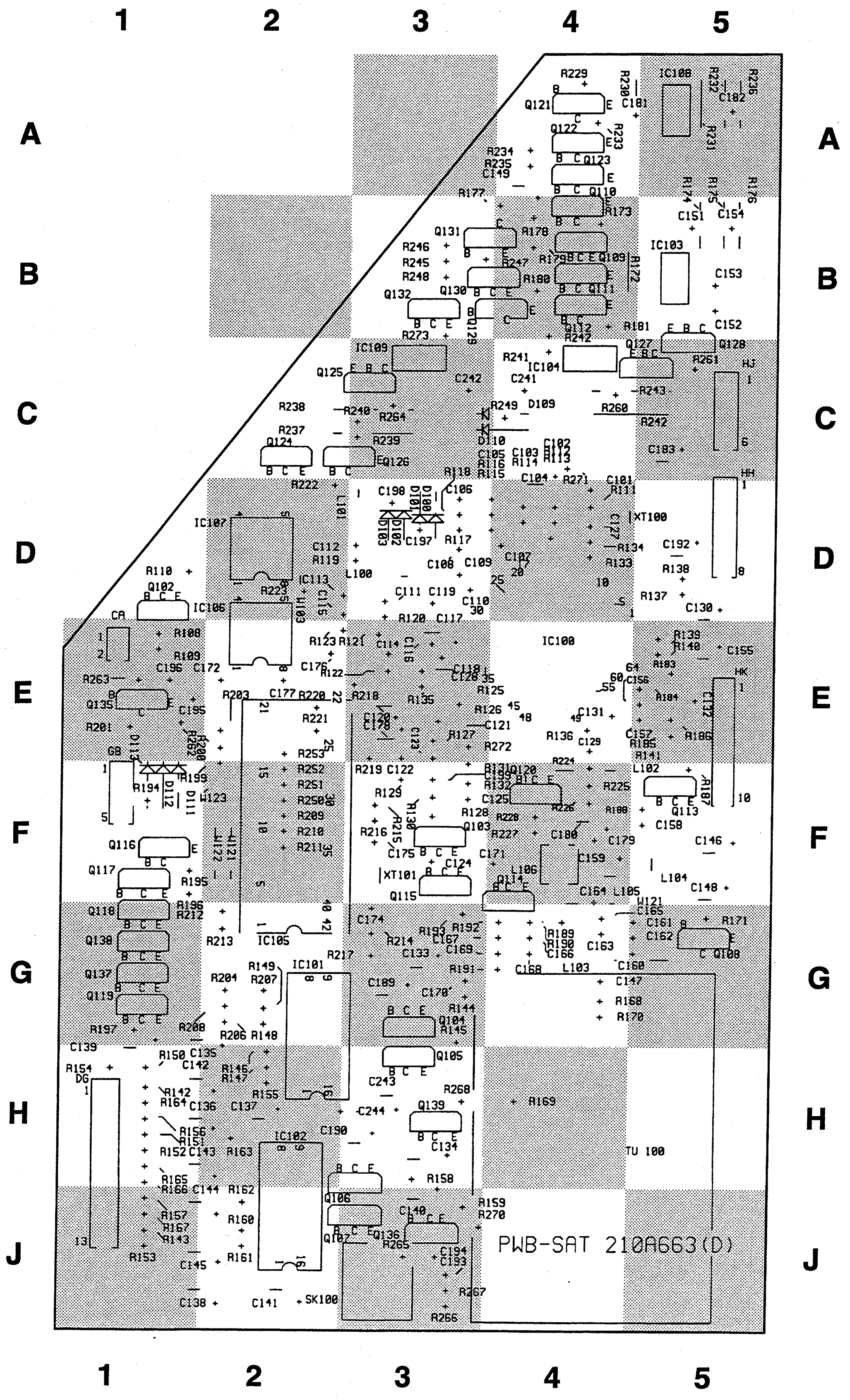

1
2
3
4
5
6
A
B
C
D
E
F
DOLBY
IC3D1
IC3D2
IC3D3
IC3D4
IC3D5
IC3D6
IC3D7
IC3D8
IC3D9
IC301
X301
DD
HE
DG
DB
DC
J352
J353

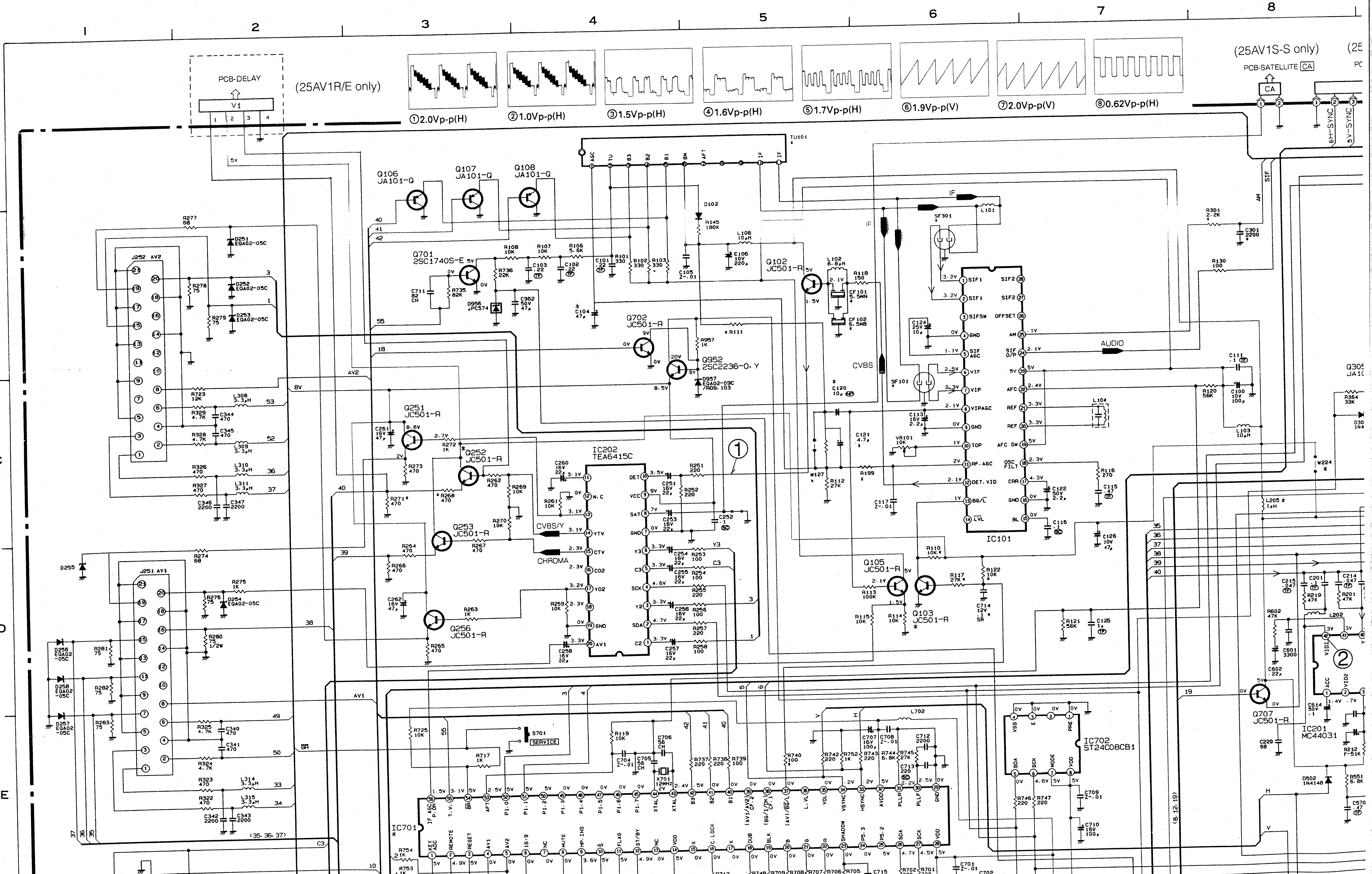

PWB-CRT
IC660
GB
GA
J601
SB
SA
LB
MV
KD
C654
C6A1
C651
C660
Q6A1
Q6A2
Q6A3
Q6A4
Q6A5
Q6A6
Q6A7
Q6A8
Q6E1
Q6E2
Q6E3
Q6E4
Q6E5
Q6E6
Q6E7
Q6E8
R
G
B

PCB-SAT COMPONENT ADDRESSES

C101	D4
C102	C4
C103	C4
C104	D4
C105	C3
C106	D3
C107	D4
C108	D3
C109	D3
C110	D3
C111	D3
C112	D2
C113	D2
C114	E3
C115	D2
C116	E3
C117	D3
C118	E3
C119	D3
C120	E3
C121	E3
C122	F3
C123	E3
C124	F3
C125	F4
C126	E3
C127	D4
C128	E3
C129	E4
C130	D5
C131	E4
C132	E5
C133	G3
C134	H3
C135	H2
C136	H1
C137	H2
C138	J2
C139	H1
C140	J3
C141	J2
C142	H1
C143	H1
C144	J2
C145	J2
C146	F5
C147	G4
C148	F5
C149	A4
C151	B5
C152	B5
C153	B5
C154	B5
C155	E5
C156	E5
C157	E5
C158	F5
C159	F4
C160	G5
C161	G5
C162	G5
C163	G4
C164	F4
C165	G5
C166	G4
C167	G3
C168	G4
C169	G3
C170	G3
C171	F4
C172	E2
C174	G3
C175	F3
C176	E2
C177	E2
C178	E3
C179	F4
C180	F4
C181	A4
C182	A5
C183	C5
C189	G3
C192	D5
C193	J3
C194	J3
C195	E1
C196	E1
C197	D3
C198	D3
C199	F4
C241	C4
C242	C3
C243	H3
C244	H3
D100	D3
D101	D3
D102	D3
D103	D3
D109	C4
D110	C4
D111	F1
D112	F1
D113	E1
IC100	E4
IC101	G1
IC102	H2
IC103	B5
IC104	C4
IC105	F2
IC106	E2
IC107	D2
IC108	A5
IC109	C3
L100	D3
L101	D2
L102	F5
L103	G4
L104	F5
L105	F4
L106	F4
Q102	D1
Q103	F3
Q104	G3
Q105	H3
Q106	J3
Q107	J3
Q108	G5
Q109	B4
Q110	B4
Q111	B4
Q112	B4
Q113	F5
Q114	F4
Q115	F3
Q116	F1
Q117	F1
Q118	G1
Q119	G1
Q120	F4
Q121	A4
Q122	A4
Q123	A4
Q124	C2
Q125	C3
Q126	C3
Q127	C5
Q128	C5
Q129	B3
Q130	B3
Q131	B3
Q132	B3
Q135	E1
Q136	J3
Q137	G1
Q138	G1
Q139	H3
R108	E1
R109	E1
R110	D1
R111	D4
R112	C4
R113	C4
R114	C4
R115	C3
R116	C3
R117	D3
R118	C3
R119	D2
R120	D3
R121	E3
R122	E2
R123	E2
R125	E3
R126	E3
R127	E3
R128	F3
R129	F3
R130	F3
R131	F4
R132	F4
R133	D4
R134	D4
R135	E3
R136	E4
R137	D5
R138	D5
R139	E5
R140	E5
R141	E5
R142	H1
R143	J1
R144	G3
R145	G3
R146	H2
R147	H2
R148	G1
R149	G1
R150	H1
R151	H1
R152	H1
R153	J1
R154	H1
R155	H2
R156	H1
R157	J1
R158	H3
R159	J4
R160	J2
R161	J2
R162	J2
R163	H2
R164	H1
R165	H1
R166	J1
R167	J1
R168	G4
R169	H4
R170	G4
R171	G5
R172	B4
R173	B4
R174	A5
R175	A5
R176	A5
R177	A3
R178	B4
R179	B4
R180	B4
R181	B4
R183	E5
R184	E5
R185	E5
R186	E5
R187	F5
R189	G4
R190	G4
R191	G3
R192	G3
R193	G3
R194	F1
R195	F1
R196	G1
R197	G1
R199	F1
R200	E2
R201	E1
R203	E2
R204	G1
R206	G1
R207	G1
R208	G1
R209	F2
R210	F2
R211	F2
R212	G1
R213	G2
R214	G3
R215	F3
R216	F3
R217	G3
R218	E3
R219	F3
R220	E2
R221	E2
R222	D2
R223	D2
R224	F4
R225	F4
R226	F4
R227	F4
R228	F4
R229	A4
R230	A4
R231	A5
R232	A5
R233	A4
R234	A4
R235	A4
R236	A5
R237	C2
R238	C2
R239	C3
R240	C3
R241	C4
R242	C5
R243	C5
R244	B4
R245	B3
R246	B3
R247	B4
R248	B3
R249	C4
R250	F2
R251	F2
R252	F2
R253	E2
R260	C4
R261	C5
R262	E1
R263	E1
R264	C3
R265	J3
R266	J3
R267	J3
R268	H3
R270	J4
R271	D4
R272	E4
R273	B3
SK100	J3
TU100	H4
XT100	D5
XT101	F3

PCB-SAT




1
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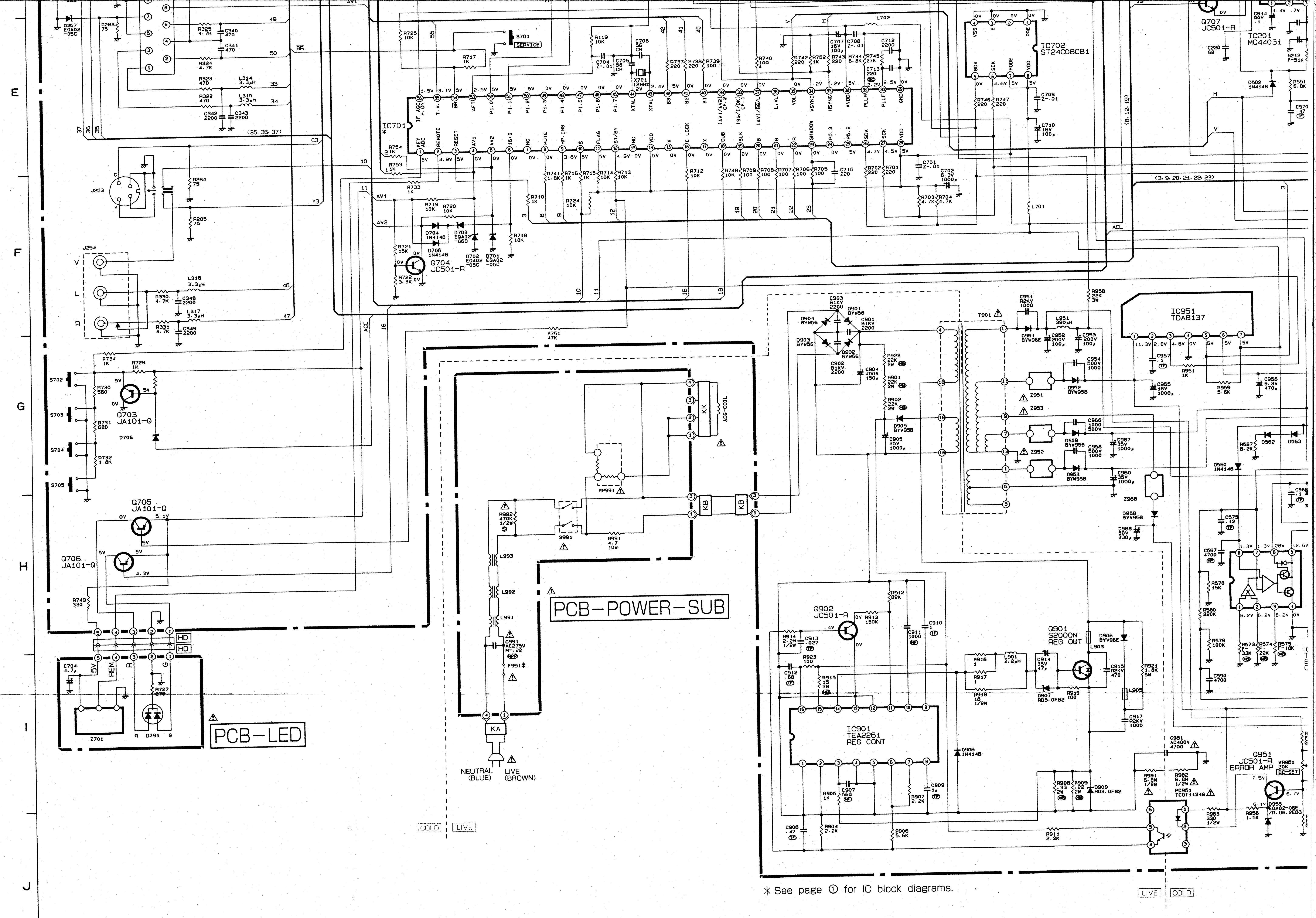
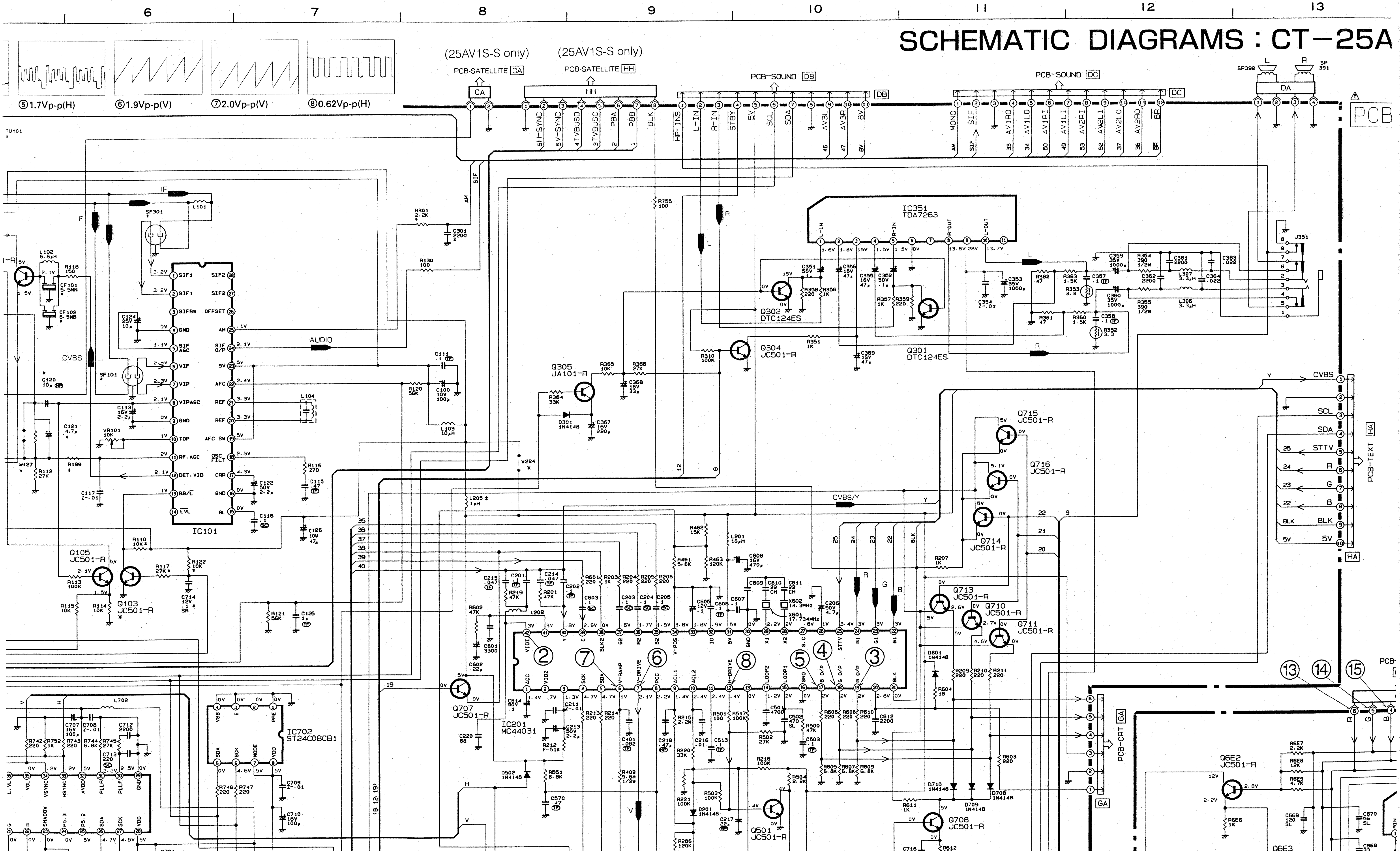
7
8
A
B
C
D
E
PCB-DELAY
V1
(25AV1R/E only)
①2.0Vp-p(H)
②1.0Vp-p(H)
③1.5Vp-p(H)
④1.6Vp-p(H)
⑤1.7Vp-p(H)
⑥1.9Vp-p(V)
⑦2.0Vp-p(V)
⑧0.62Vp-p(H)
(25AV1S-S only)
PCB-SATELLITE CA
CA
6H-SYNC
5V-SYNC
TU101
AGC
TU
B3
B2
B1
BM
AFT
IF
IF
Q106 JA101-Q
Q107 JA101-Q
Q108 JA101-Q
Q701 2SC1740S-E
Q702 JC501-R
Q952 2SC2236-O,Y
Q102 JC501-R
Q251 JC501-R
Q252 JC501-R
Q253 JC501-R
Q256 JC501-R
Q105 JC501-R
Q103 JC501-R
Q707 JC501-R
Q305
D102
D251 EQA02-05C
D252 EQA02-05C
D253 EQA02-05C
D254 EQA02-05C
D255
D256 EQA02-05C
D258 EQA02-05C
D257 EQA02-05C
D956 PC574
D957 EQA02-09C /RD9.1B3
D502 1N4148
J252 AV2
J251 AV1
IC202 TEA6415C
DET
VCC
SAT
GND
Y3
C3
SCK
Y2
SDA
C2
N.C
YTV
CTV
CO2
YO2
AV1
CVBS/Y
CHROMA
IC101
SIF1
SIF2
SIFSW
OFFSET
AM
SIF AGC
SIF O/P
VIF
VIP
VIPAGC
AFC
REF
AFC SW
TOP
RF.AGC
OSC FILT
DET.VID
CRR
B&/L
GND
LVL
BL
SF301
SF101
L101
L102 6.8μH
CF101 5.5MN
CF102 6.5MB
L104
L103 10μH
L106 10μH
L202
L205
L702
IF
AUDIO
CVBS
SIF
AM
IC702 ST24C08CB1
VSS
E
PRE
SDA
SCK
MODE
VDD
IC201 MC44031
VID1
VID2
ACC
IC701
S701 SERVICE
X701 12MHz
IF AGC P.ON
T.V.
BR
AFT
P1.0
P1.1
P1.2
P1.3
P1.4
P1.5
P1.6
P1.7
XTAL
XTAL
B3
B2
B1
(AV1/AV2) CF.2
(BG/I/DK) CF.1
(AV1)/BG/L
L.VL
VOL
VSYNC
HSYNC
AVDD
PLLR
PLLF
GND
KEY ADC
REMOTE
RESET
AV1
AV2
16:9
NC
MUTE
HP.INS
FLAG
ST/BY
VDD
X
C.LOCK
DUB
BLK
B
G
R
SHADOW
P5.3
P5.2
SDA
SCK
VDD
(35.36.37)
(8.12.19)
AV2
AV1
BR
8V
W127
W224
VR101 10K



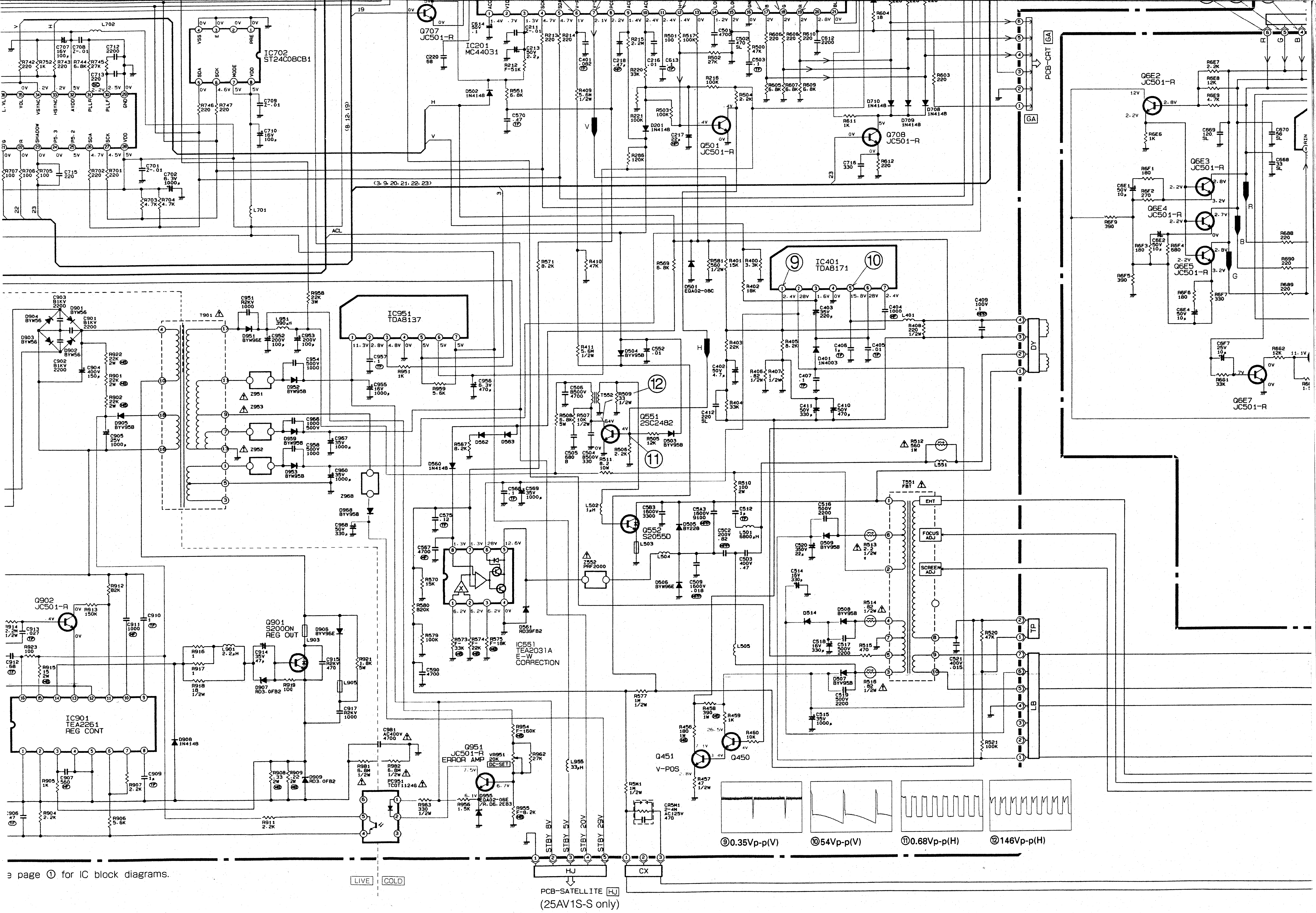
E
F
G
H
I
J
IC701
IC702
ST24C08CB1
IC201
MC44031
Q707
JC501-R
S701
SERVICE
X701
12MHZ
L702
L701
J253
J254
Q704
JC501-R
Q703
JA101-Q
Q705
JA101-Q
Q706
JA101-Q
S702
S703
S704
S705
D706
HD
PCB-LED
Z701
D791
REM
PCB-POWER-SUB
KK
ADG-COIL
RP991
S991
KB
KA
L993
L992
L991
C991
F991
NEUTRAL
(BLUE)
LIVE
(BROWN)
COLD
LIVE
T901
IC951
TDA8137
Z951
Z952
Z953
Z968
Q902
JC501-R
IC901
TEA2261
REG CONT
Q901
S2000N
REG OUT
Q951
JC501-R
ERROR AMP
VR951
20K
DC-SET
PC951
TCDT1124G
LIVE
COLD

⁎ See page ① for IC block diagrams.

SCHEMATIC DIAGRAMS : CT-25A

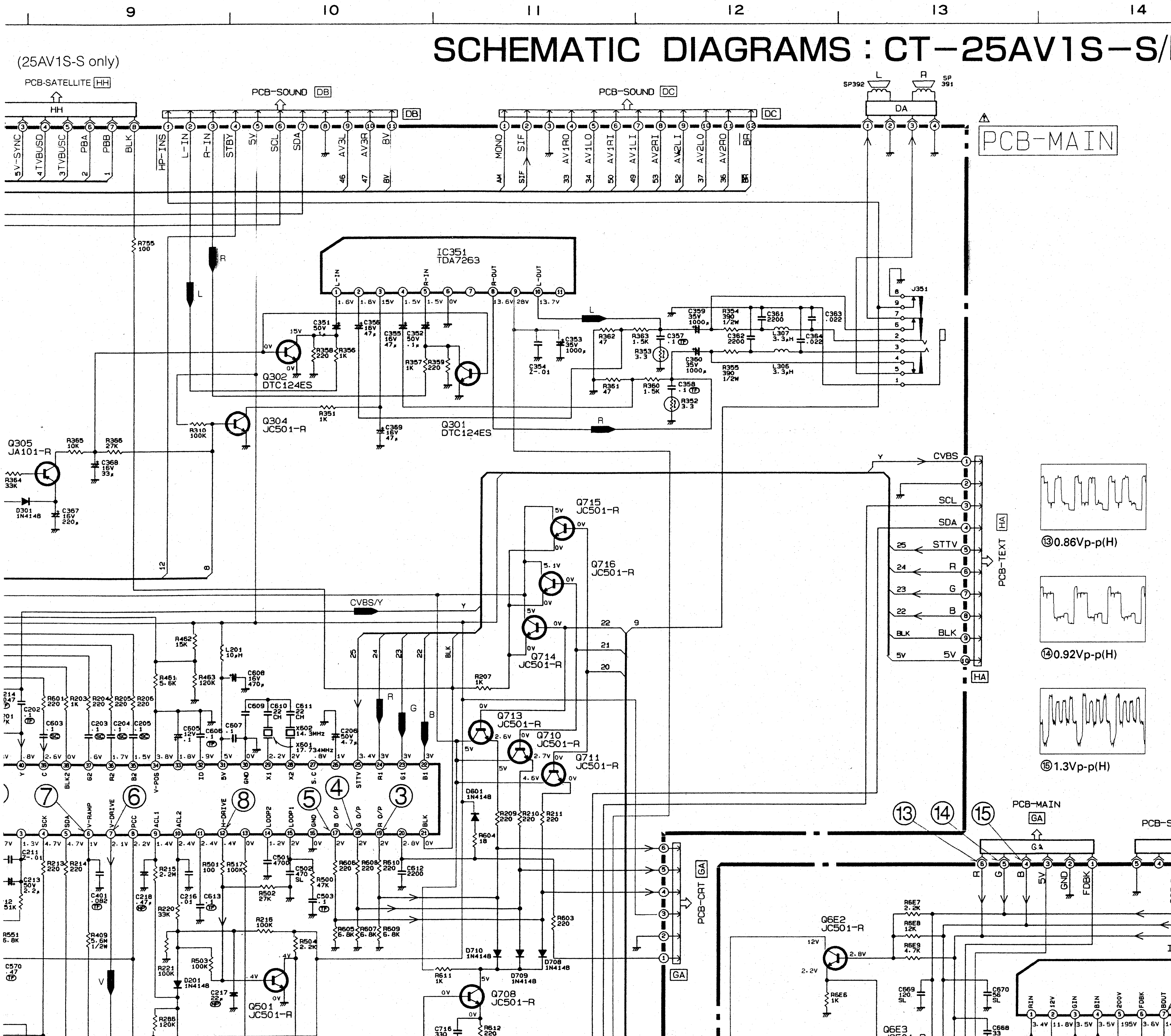


6
7
8
9
10
11
12
13
⑤1.7Vp-p(H)
⑥1.9Vp-p(V)
⑦2.0Vp-p(V)
⑧0.62Vp-p(H)
(25AV1S-S only)
PCB-SATELLITE CA
(25AV1S-S only)
PCB-SATELLITE HH
PCB-SOUND DB
PCB-SOUND DC
SP392
SP391
L
R
DA
PCB
6H-SYNC
5V-SYNC
4TVBUSD
3TVBUSC
PBA
PBB
BLK
HP-INS
L-IN
R-IN
STBY
5V
SCL
SDA
AV3L
AV3R
8V
MONO
SIF
AV1RO
AV1LO
AV1RI
AV1LI
AV2RI
AV2LI
AV2LO
AV2RO
BR
IF
CVBS
AUDIO
SF301
SF101
L101
L102
CF101
CF102
IC101
SIF1
SIF2
SIFSW
OFFSET
GND
AM
SIF AGC
SIF O/P
VIF
VIP
VIPAGC
TOP
RF.AGC
DET.VID
B&/L
LVL
AFC
REF
AFC SW
OSC FILT
CRA
BL
L104
VR101
Q105 JC501-R
Q103 JC501-R
Q305 JA101-R
D301 1N4148
IC351 TDA7263
L-IN
R-IN
R-OUT
L-OUT
Q302 DTC124ES
Q304 JC501-R
Q301 DTC124ES
J351
L306
L307
CVBS/Y
Y
Q715 JC501-R
Q716 JC501-R
Q714 JC501-R
Q713 JC501-R
Q710 JC501-R
Q711 JC501-R
Q707 JC501-R
Q708 JC501-R
Q501 JC501-R
Q6E2 JC501-R
Q6E3
IC201 MC44031
IC702 ST24C08CB1
X501 17.734MHz
X502 14.3MHz
L201
L202
L205
L702
W224
D501 1N4148
D502 1N4148
D201 1N4148
D708 1N4148
D709 1N4148
D710 1N4148
PCB-TEXT HA
SCL
SDA
STTV
R
G
B
BLK
5V
PCB-CRT GA
(8.12.19)
②
⑦
⑥
⑧
⑤
④
③
⑬
⑭
⑮


IC702 ST24C08CB1
IC201 MC44031
Q707 JC501-R
Q501 JC501-R
Q708 JC501-R
PCB-CRT GA
Q6E2 JC501-R
Q6E3 JC501-R
Q6E4 JC501-R
Q6E5 JC501-R
Q6E7 JC501-R
IC401 TDA8171
IC951 TDA8137
T901
Q551 2SC2482
Q552 S2055D
IC551 TEA2031A E-W CORRECTION
T551 FBT
EHT
FOCUS ADJ
SCREEN ADJ
DY
TP
LB
Q902 JC501-R
Q901 S2000N REG OUT
IC901 TEA2261 REG CONT
Q951 JC501-R ERROR AMP
VR951 20K DC-SET
PC951 TCDT1124G
Q451 V-POS
Q450
STBY 8V
STBY 5V
STBY 20V
STBY 29V
HJ
CX
PCB-SATELLITE HJ
(25AV1S-S only)
LIVE
COLD
⑨0.35Vp-p(V)
⑩54Vp-p(V)
⑪0.68Vp-p(H)
⑫146Vp-p(H)

e page ① for IC block diagrams.

SCHEMATIC DIAGRAMS : CT−25AV1S−S/E/R


9
10
11
12
13
(25AV1S-S only)
PCB-SATELLITE HH
PCB-SOUND DB
PCB-SOUND DC
SP392 L
R SP 391
DA
PCB-MAIN
5V-SYNC
4TVBUSD
3TVBUSC
PBA
PBB
BLK
HP-INS
L-IN
R-IN
STBY
5V
SCL
SDA
AV3L
AV3R
BV
MONO
SIF
AV1RO
AV1LO
AV1RI
AV1LI
AV2RI
AV2LI
AV2LO
AV2RO
BR
IC351 TDA7263
J351
Q302 DTC124ES
Q304 JC501-R
Q301 DTC124ES
Q305 JA101-R
D301 1N4148
Q715 JC501-R
Q716 JC501-R
Q714 JC501-R
Q713 JC501-R
Q710 JC501-R
Q711 JC501-R
Q708 JC501-R
Q501 JC501-R
D601 1N4148
D710 1N4148
D709 1N4148
D708 1N4148
D201 1N4148
X602 14.3MHz
X601 17.734MHz
CVBS/Y
CVBS
SCL
SDA
STTV
R
G
B
BLK
5V
PCB-TEXT
HA
PCB-CRT
GA
⑦
⑥
⑧
⑤
④
③
⑬
⑭
⑮
PCB-MAIN GA

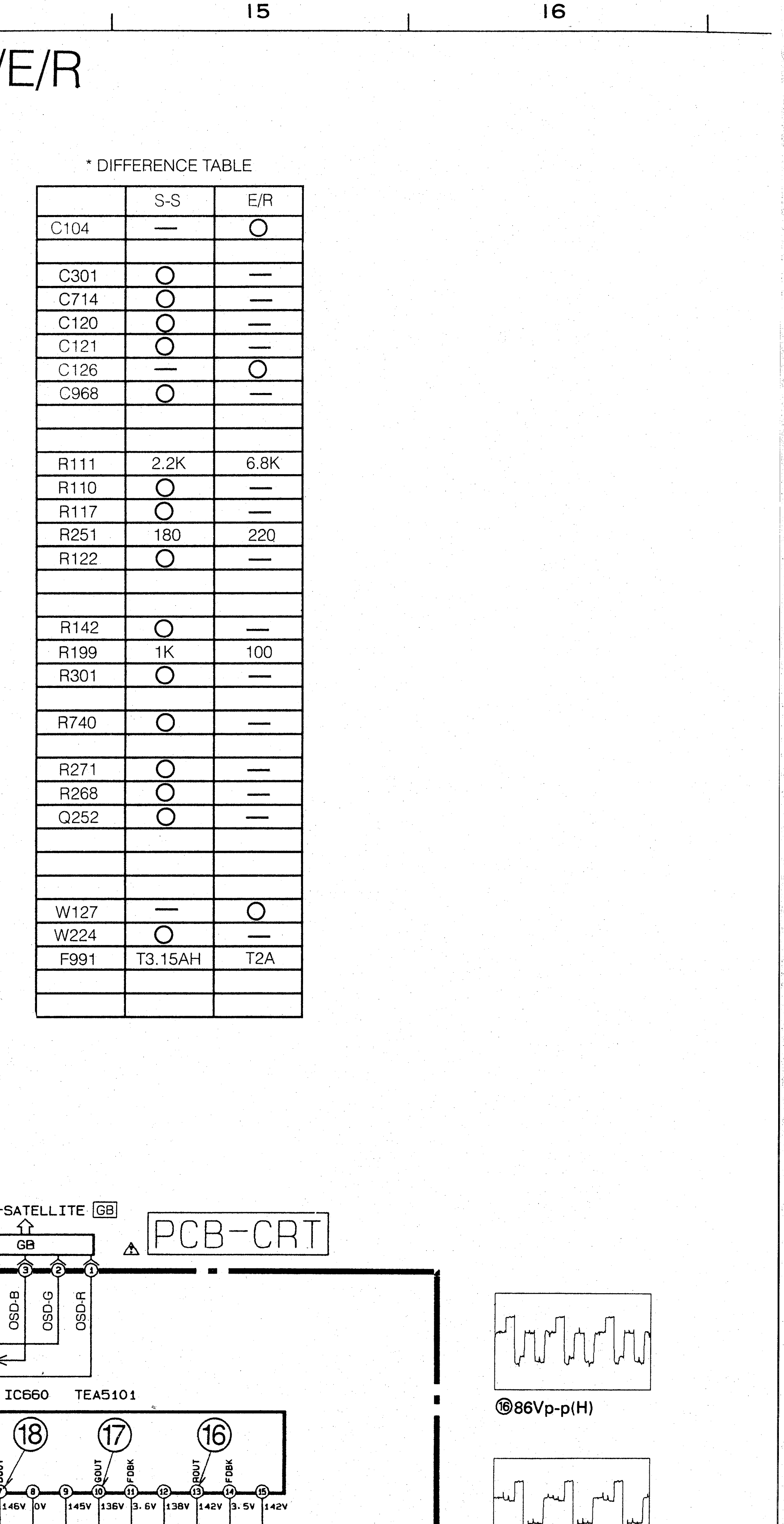
⑬0.86Vp-p(H)

⑭0.92Vp-p(H)

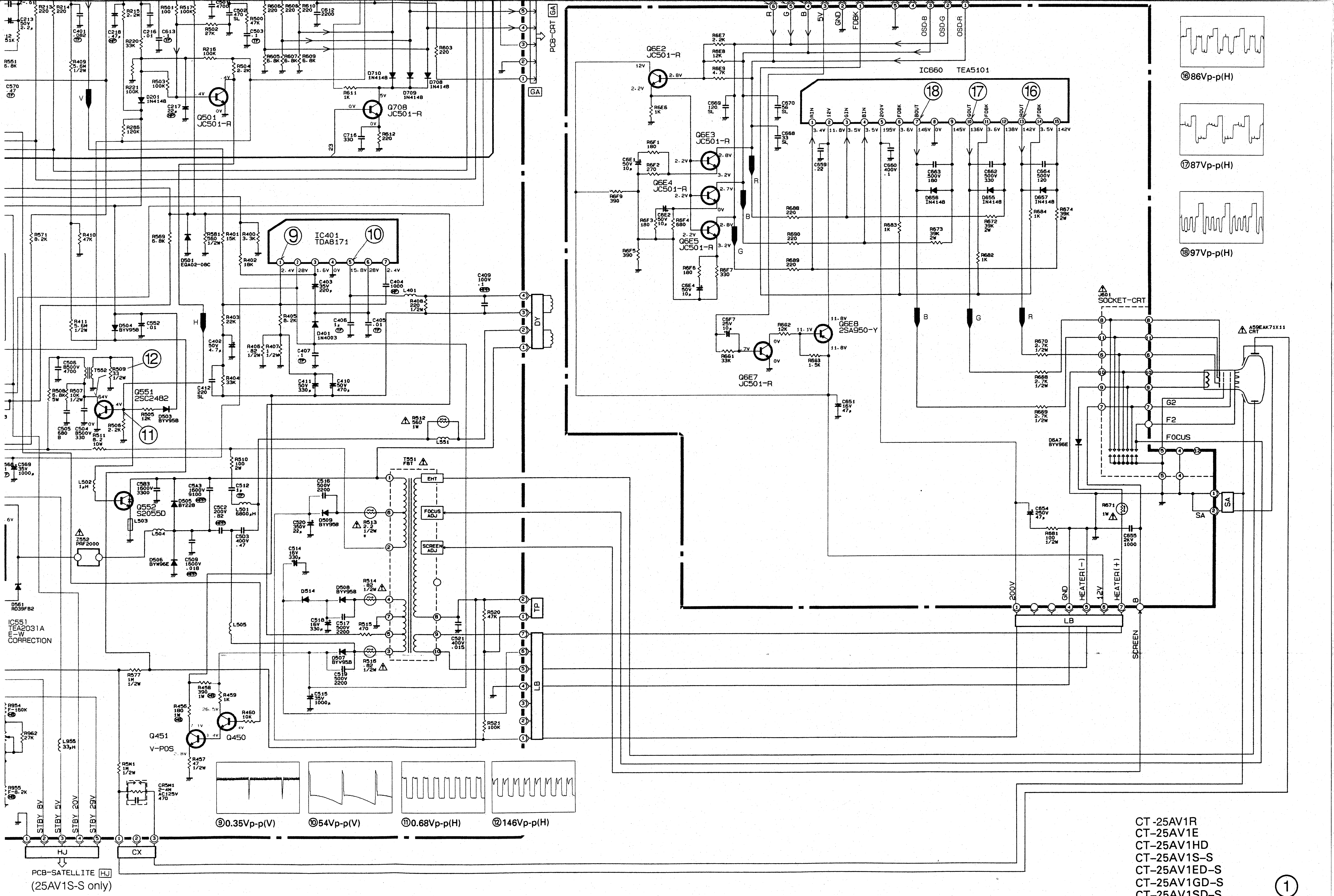
⑮1.3Vp-p(H)

* DIFFERENCE TABLE

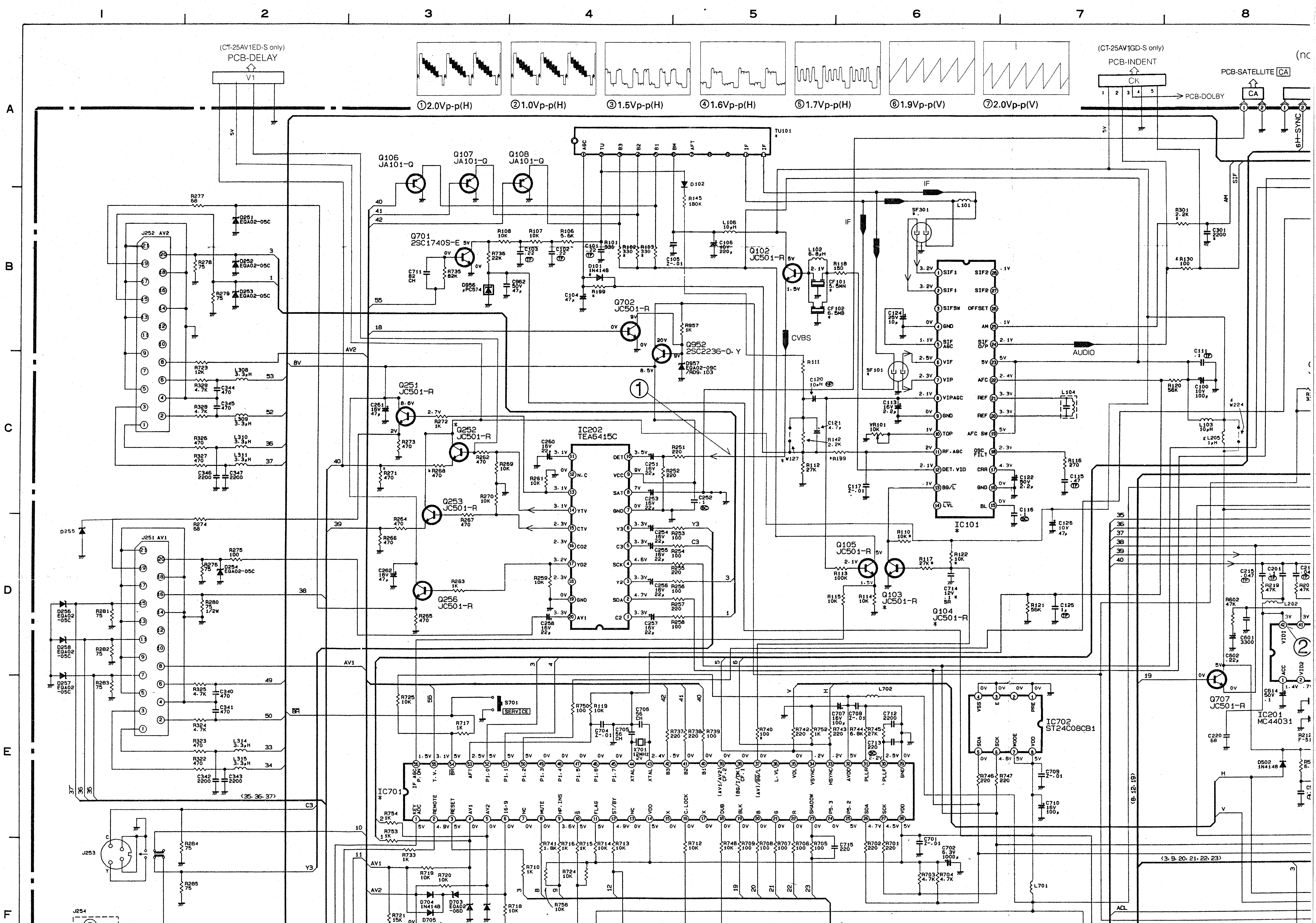
	S-S	E/R
C104	—	○
C301	○	—
C714	○	—
C120	○	—
C121	○	—
C126	—	○
C968	○	—
R111	2.2K	6.8K
R110	○	—
R117	○	—
R251	180	220
R122	○	—
R142	○	—
R199	1K	100
R301	○	
R740	○	—
R271	○	—
R268	○	—
Q252	○	—
W127	—	○
W224	○	—
F991	T3.15AH	T2A

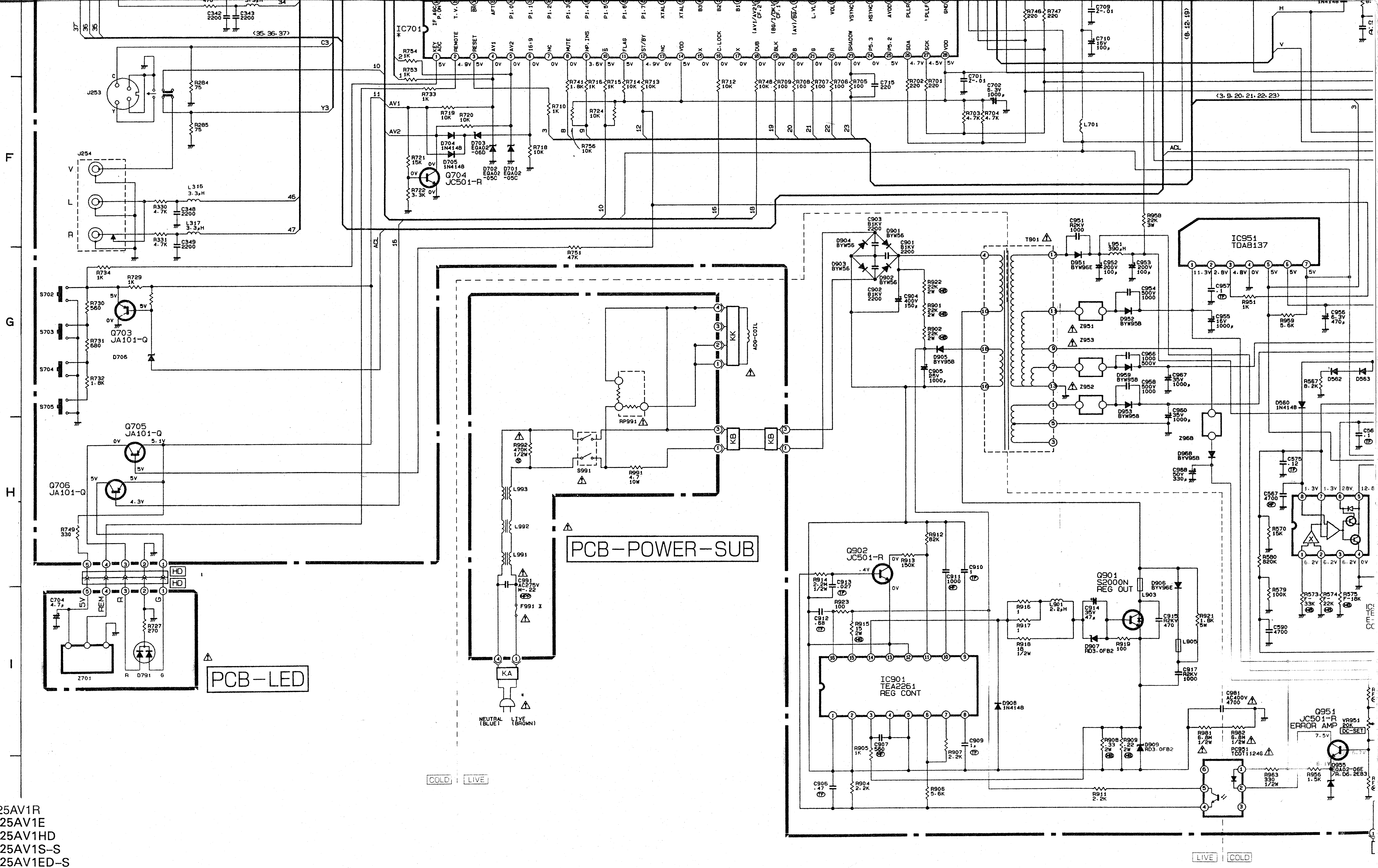

14
15
16
PCB-SATELLITE GB
GB
PCB-CRT
OSD-B
OSD-G
OSD-R
IC660 TEA5101
⑱
⑰
⑯

⑯86Vp-p(H)


PCB-CRT GA
GA
IC660 TEA5101
Q6E2 JC501-R
Q6E3 JC501-R
Q6E4 JC501-R
Q6E5 JC501-R
Q6E7 JC501-R
Q6E8 2SA950-Y
R G B 5V GND FDBK
OSD-B OSD-G OSD-R
RIN GIN BIN 200V FDBK BOUT RIN GOUT FDBK ROUT FDBK
⑯86Vp-p(H)
⑰87Vp-p(H)
⑱97Vp-p(H)
J601 SOCKET-CRT
A59EAK71X11 CRT
G2
F2
FOCUS
SA
200V GND HEATER(-) 12V HEATER(+) B
LB
SCREEN
IC401 TDA8171
Q501 JC501-R
Q708 JC501-R
Q551 2SC2482
Q552 S2055D
T552
T551 FBT
EHT
FOCUS ADJ
SCREEN ADJ
DY
TP
LB
Z552 PRF2000
IC551 TEA2031A E-W CORRECTION
Q451 V-POS
Q450
STBY 8V STBY 5V STBY 20V STBY 29V
HJ
CX
PCB-SATELLITE HJ
(25AV1S-S only)
⑨0.35Vp-p(V)
⑩54Vp-p(V)
⑪0.68Vp-p(H)
⑫146Vp-p(H)

CT-25AV1R
CT-25AV1E
CT-25AV1HD
CT-25AV1S-S
CT-25AV1ED-S
CT-25AV1GD-S
CT-25AV1SD-S

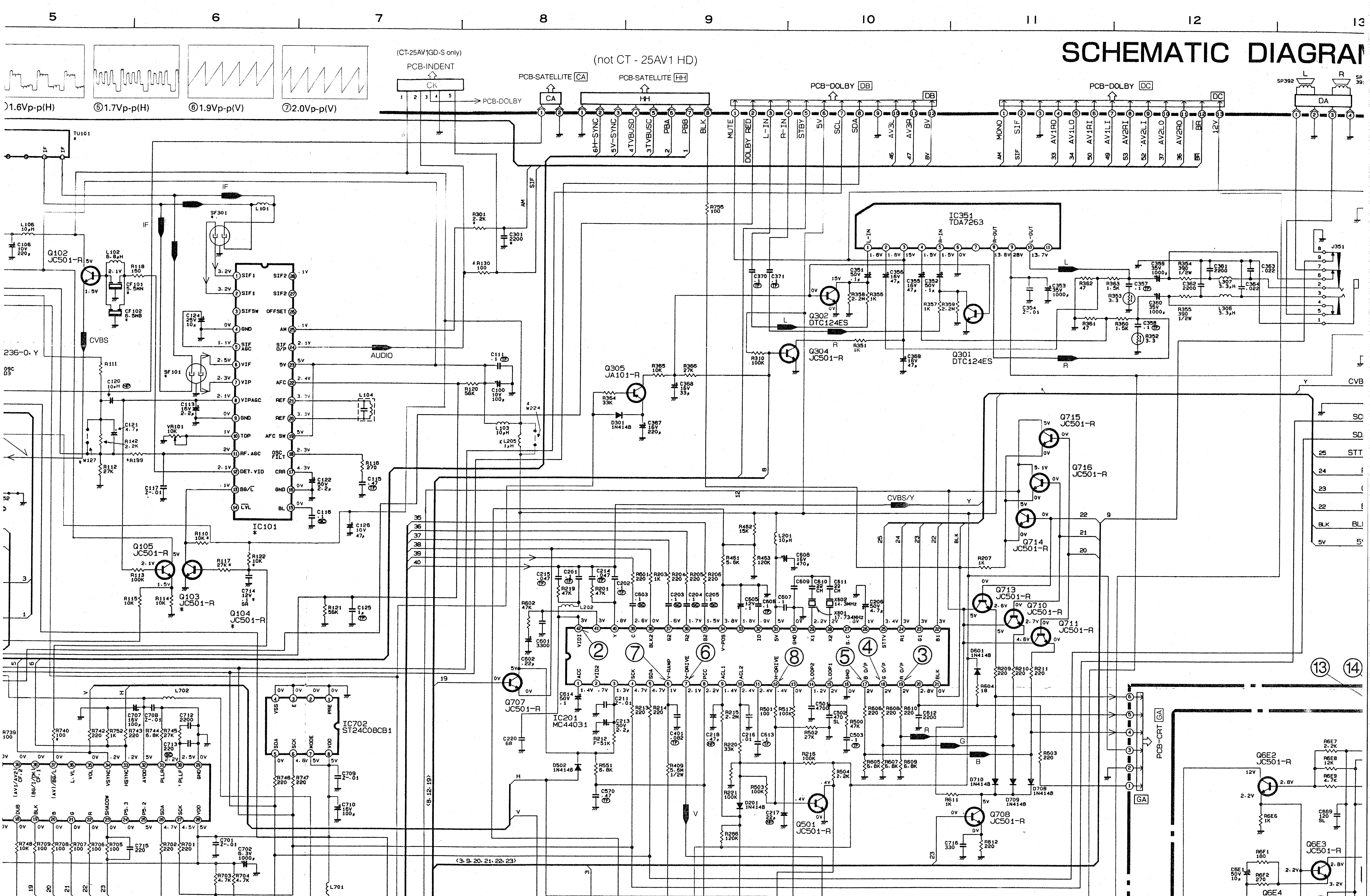

1
2
3
4
5
6
7
8
A
B
C
D
E
F
(CT-25AV1ED-S only)
PCB-DELAY
V1
①2.0Vp-p(H)
②1.0Vp-p(H)
③1.5Vp-p(H)
④1.6Vp-p(H)
⑤1.7Vp-p(H)
⑥1.9Vp-p(V)
⑦2.0Vp-p(V)
(CT-25AV1GD-S only)
PCB-INDENT
CK
PCB-DOLBY
PCB-SATELLITE CA
CA
6H-SYNC
TU101
AGC
TU
B3
B2
B1
BH
AFT
IF
IF
D102
R145 180K
Q106 JA101-Q
Q107 JA101-Q
Q108 JA101-Q
Q701 2SC1740S-E
R108 10K
R107 10K
R106 5.6K
R736 22K
R735 82K
C711 82 CH
D956 μPC574
C962 50V 47μ
C103 .22
C102 .22
C101 .22
R101 330
R102 330
R103 330
D101 1N4148
R199
C104 47μ
C105 Z-.01
L106 10μH
C106 10V 220μ
Q102 JC501-R
L102 6.8μH
R118 150
CF101 5.5MN
CF102 5.5MB
Q702 JC501-R
R957 1K
Q952 2SC2236-O.Y
D957 EQA02-09C / RD9.1D3
CVBS
IF
SF301
L101
SF101
C124 25V 10μ
C120 10μH
C113 16V 2.2μ
C121 4.7μ
VR101 10K
R142 2.2K
R112 27K
W127
R111
C117 Z-.01
IC101
SIF1
SIF1
SIFSW
GND
SIF AGC
VIF
VIP
VIPAGC
GND
TOP
RF.AGC
DET.VID
BG/L
LVL
SIF2
SIF2
OFFSET
AM
SIF O/P
5V
AFC
REF
REF
AFC SW
OSC FILT
CRR
GND
BL
C122 50V 2.2μ
C116
C126 10V 47μ
C115 .47
R116 270
AUDIO
C111 .1
R120 56K
C100 10V 100μ
L104
L103 10μH
L205 1μH
W224
R301 2.2K
C301 2200
R130 100
AM
SIF
Q105 JC501-R
Q103 JC501-R
Q104 JC501-R
R110 10K
R117 27K
R122 10K
R113 100K
R115 10K
R114 10K
C714 12V .1 SR
R121 56K
C125 1μ
IC202 TEA6415C
DET
VCC
SAT
GND
Y3
C3
SCK
Y2
SDA
C2
N.C
YTV
CTV
CO2
YO2
GND
AV1
C260 16V 22μ
R261 10K
R251 220
C251 16V 22μ
R252 220
C253 16V 22μ
C252 .1
C254 16V 22μ
R253 100
C255 16V 22μ
R254 100
R255 220
C256 16V 22μ
R256 100
R257 220
C257 16V 22μ
R258 100
C258 16V 22μ
R259 10K
Q251 JC501-R
Q252 JC501-R
Q253 JC501-R
Q256 JC501-R
C261 16V 47μ
R272 1K
R273 470
R262 470
R269 10K
R268 470
R271 470
R270 10K
R264 470
R267 470
R266 470
C262 16V 47μ
R263 1K
R265 470
J252 AV2
R277 68
D251 EQA02-05C
D252 EQA02-05C
D253 EQA02-05C
R278 75
R279 75
R723 12K
L308 3.3μH
R329 4.7K
C344 470
C345 470
R328 4.7K
L309 3.3μH
R326 470
L310 3.3μH
R327 470
L311 3.3μH
C346 2200
C347 2200
AV2
8V
D255
R274 68
J251 AV1
R275 100
R276 75
D254 EQA02-05C
R280 75 1/2W
D256 EQA02-05C
D258 EQA02-05C
D257 EQA02-05C
R281 75
R282 75
R283 75
R325 4.7K
C340 470
C341 470
R324 4.7K
R323 470
L314 3.3μH
R322 470
L315 3.3μH
C342 2200
C343 2200
(35.36.37)
AV1
J253
R284 75
R285 75
J254
IC701
R725 10K
S701 SERVICE
R717 1K
R750 100
R119 10K
C704 Z-.01
C705 56 CH
C706 56 CH
X701 12MHz
R737 220
R738 220
R739 100
R740 100
R742 220
R752 1K
R743 220
R744 6.8K
R745 27K
L702
C707 16V 100μ
C708 Z-.01
C712 2200
C713 220
IF AGC P.ON
T.V.
BR
AFT
P1.0
P1.1
P1.2
P1.3
P1.4
P1.5
P1.6
P1.7
XTAL
XTAL
B3
B2
B1
(AV1/AV2)/CF.2
(BG/DK)/CF.1
(AV1)/BG/L
L.VL
VOL
VSYNC
HSYNC
AVDD
PLLR
PLLF
GND
KEY ADC
REMOTE
RESET
AV1
AV2
16:9
NC
MUTE
HP.INS
S
FLAG
ST/BY
NC
VDD
X
X
C.LOCK
X
DUB
BLK
B
G
R
SHADOW
P5.3
P5.2
SDA
SCK
VDD
R754 2.1K
R753 1.1K
R733 1K
R719 10K
R720 10K
D704 1N4148
D703 EQA02-06D
D705
R721 15K
R718 10K
R710 1K
R741 1.8K
R716 1K
R715 1K
R714 10K
R713 10K
R724 10K
R756 10K
R712 10K
R748 10K
R709 100
R708 100
R707 100
R706 100
R705 100
C715 220
R702 220
R701 220
C701 Z-.01
C702 6.3V 1000μ
R703 4.7K
R704 4.7K
L701
IC702 ST24C08CB1
VSS
E
PRE
SDA
SCK
MODE
VDD
R746 220
R747 220
C709 Z-.01
C710 16V 100μ
(8.12.19)
(3.9.20.21.22.23)
ACL
Q707 JC501-R
IC201 MC44031
VID1
VID2
ACC
R602 47K
C601 3300
C602 .22μ
C614 50V .1
C220 68
D502 1N4148
L202
C215 .047
C201
R219 47K
H
V
19
35
36
37
38
39
40


F
G
H
I
IC701
J253
J254
V
L
R
S702
S703
S704
S705
Q703
JA101-Q
Q705
JA101-Q
Q706
JA101-Q
Q704
JC501-R
D706
PCB-LED
Z701
D791
REM
PCB-POWER-SUB
ADG-COIL
KK
KB
KA
RP991
S991
R992
470K
1/2W
R991
4.7
10W
L993
L992
L991
C991
AC275V
M-.22
F991
NEUTRAL
(BLUE)
LIVE
(BROWN)
COLD
LIVE
T901
IC951
TDA8137
D901
BYW56
D902
BYW56
D903
BYW56
D904
BYW56
D905
BYV95B
Q902
JC501-R
Q901
S2000N
REG OUT
IC901
TEA2261
REG CONT
L903
L905
D906
BYV96E
D907
RD3.0FB2
D908
1N4148
D909
RD3.0FB2
Q951
JC501-R
ERROR AMP
VR951
20K
DC-SET
PC951
TCDT1124G
Z951
Z952
Z953
Z968
D951
BYW96E
D952
BYW95B
D953
BYW95B
D959
BYW95B
D968
BYV95B
D550
1N4148
D562
D563
L701
ACL
AV1
AV2
Y3
C3
HD

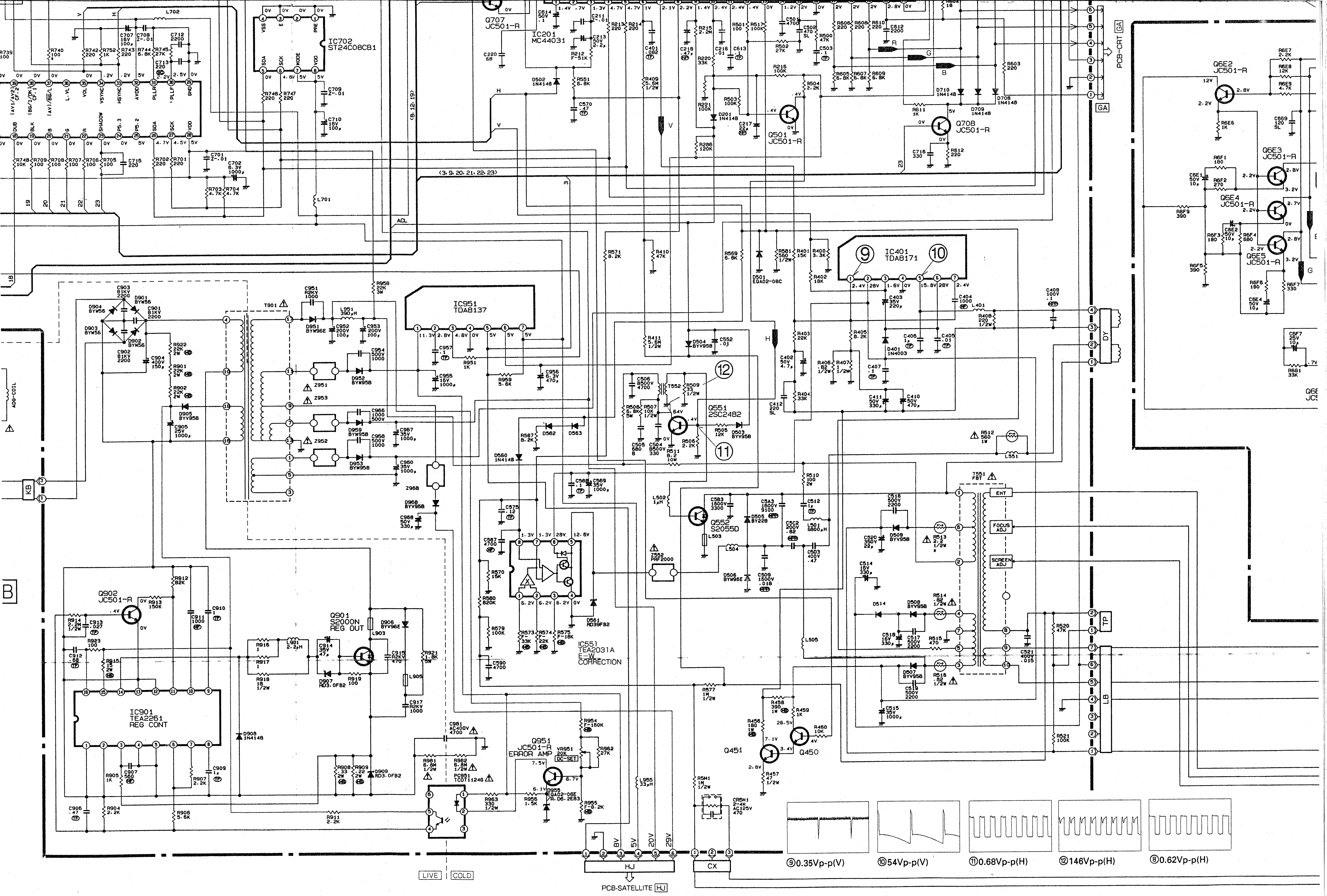
CT-25AV1R
CT-25AV1E
CT-25AV1HD
CT-25AV1S-S
CT-25AV1ED-S
CT-25AV1GD-S
CT-25AV1SD-S

②

SCHEMATIC DIAGRA



5
6
7
8
9
10
11
12
13
1.6Vp-p(H)
⑤1.7Vp-p(H)
⑥1.9Vp-p(V)
⑦2.0Vp-p(V)
(CT-25AV1GD-S only)
PCB-INDENT
CK
PCB-DOLBY
PCB-SATELLITE CA
(not CT - 25AV1 HD)
PCB-SATELLITE HH
HH
6H-SYNC
5V-SYNC
4TVBUSD
3TVBUSC
PBA
PBB
BLK
PCB-DOLBY DB
DB
MUTE
DOLBY RED
L-IN
R-IN
STBY
5V
SCL
SDA
AV3L
AV3R
BV
PCB-DOLBY DC
DC
MONO
SIF
AV1RO
AV1LO
AV1RI
AV1LI
AV2RI
AV2LI
AV2LO
AV2RO
BR
12V
SP392
L
R
DA
TU101
IF
L106 10μH
C106 10V 220μ
Q102 JC501-R
L102 6.8μH
R118 150
CF101 5.5MN
CF102 6.5MB
CVBS
SF301
L101
SF101
C124 25V 10μ
VR101 10K
R111
C120 10μH
C121 4.7μ
R142 2.2K
W127
R112 27K
R199
C117 Z-.01
IC101
SIF1
SIFSW
GND
SIF AGC
VIF
VIP
VIPAGC
TOP
RF.AGC
DET.VID
B8/L
LVL
SIF2
OFFSET
AM
SIF O/P
5V
AFC
REF
AFC SW
OSC FILT
CRR
BL
AUDIO
R301 2.2K
C301 2200
R130 100
C111 .1
C100 10V 100μ
R120 56K
L104
W224
L103 10μH
L205 1μH
R116 270
C115 .47
C122 50V 2.2μ
C116
C126 10V 47μ
Q105 JC501-R
R113 100K
R115 10K
R114 10K
Q103 JC501-R
R110 10K
R117 27K
R122 10K
C714 12V .1 SR
Q104 JC501-R
R121 56K
C125 1μ
Q305 JA101-R
R364 33K
D301 1N4148
R365 10K
R366 27K
C368 16V 33μ
C367 16V 220μ
R755 100
IC351 TDA7263
L-IN
R-IN
R-OUT
L-OUT
C370
C371
C351 50V 1μ
C356 16V 47μ
C355 16V 47μ
C352 50V .1μ
R358 2.2M
R355 1K
R357 1K
R359 2.2M
Q302 DTC124ES
Q301 DTC124ES
Q304 JC501-R
R310 100K
R351 1K
C369 16V 47μ
C354 Z-.01
C353 35V 1000μ
R362 47
R363 1.5K
R353 3.3
C357 .1
C359 35V 1000μ
R354 390 1/2W
C362 2200
C361 2200
L307 3.3μH
C363 .022
C364 .022
C360 35V 1000μ
R355 390 1/2W
L306 3.3μH
R361 47
R360 1.5K
C358 .1
R352 3.3
J351
CVBS/Y
Y
Q715 JC501-R
Q716 JC501-R
Q714 JC501-R
Q713 JC501-R
Q710 JC501-R
Q711 JC501-R
R207 1K
D601 1N4148
R604 18
R209 220
R210 220
R211 220
R452 15K
L201 10μH
R451 5.6K
R453 120K
C608 16V 470μ
C609
C610 22 CH
C611 22 CH
X602 14.3MHz
X601 17.734MHz
C206 50V 4.7μ
IC201 MC44031
VID1
VID2
ACC
SCK
SDA
V-RAMP
V-DRIVE
PCC
ACL1
ACL2
H-DRIVE
LOOP2
LOOP1
GND
B O/P
G O/P
R O/P
BLK
STTV
X1
X2
S.C
V-POS
R601 220
R203 1K
R204 220
R205 220
R206 220
C203
C204
C205
C215 .047
C201 .1
C214 .047
C202 1
R219 47K
R201 47K
C603
L202
R602 47K
C601 3300
C602 22μ
Q707 JC501-R
C614 50V .1
C220 68
C211 Z-.01
C213 50V 2.2μ
R212 F-51K
D502 1N4148
R551 6.8K
C570
R213 220
R214 220
C401 .082
R409 5.6M 1/2W
C218 47μ
R215 2.2M
C216 .01
C613
R220 33K
R221 100K
R503 100K
D201 1N4148
C217 22μ
R286 120K
R501 100
R517 100K
C501 4700
C502 470 SL
R500 47K
C503 1
R502 27K
R216 100K
R504 2.2K
Q501 JC501-R
R606 220
R608 220
R610 220
C612 2200
R605 6.8K
R607 6.8K
R609 6.8K
R603 220
D710 1N4148
D709 1N4148
D708 1N4148
R611 1K
Q708 JC501-R
C716 330
R612 220
PCB-CRT GA
GA
⑬
⑭
Q6E2 JC501-R
R6E7 2.2K
R6E8 12K
R6E9 4.7K
R6E6 1K
C6E9 120 SL
Q6E3 JC501-R
R6F1 180
R6F2 270
C6E1 50V 10μ
Q6E4
IC702 ST24C08CB1
VSS
E
PRE
SDA
SCK
MODE
VDD
R746 220
R747 220
C709 Z-.01
C710 16V 100μ
L702
C707 16V 100μ
C708 Z-.01
C712 2200
C713 220
R740 100
R742 220
R752 1K
R743 220
R744 6.8K
R745 27K
R739 100
(AV1/AV2) CF.2
(B6/L/DK) CF.1
(AV)/B6/L
L.VL
VOL
VSYNC
HSYNC
AVDD
PLL
GND
DVB
BLK
B
G
R
SHADOW
P5.3
P5.2
SDA
SCK
VDD
R748 10K
R709 100
R708 100
R707 100
R706 100
R705 100
C715 220
R702 220
R701 220
C701 Z-.01
C702 6.3V 1000μ
R703 4.7K
R704 4.7K
L701
(8.12.19)
(3.9.20.21.22.23)
236-0. Y
STT
SD
BLK
5V


IC702
ST24C08CB1
IC201
MC44031
Q707
JC501-R
Q501
JC501-R
Q708
JC501-R
Q6E2
JC501-R
Q6E3
JC501-R
Q6E4
JC501-R
Q6E5
JC501-R
PCB-CRT GA
IC401
TDA8171
IC951
TDA8137
T901
Z951
Z952
Z953
Z968
Q551
2SC2482
Q552
S2055D
Z552
PRF2000
IC551
TEA2031A
E-W
CORRECTION
T551
FBT
EHT
FOCUS ADJ
SCREEN ADJ
DY
TP
LB
KB
ADG-COIL
Q902
JC501-R
Q901
S2000N
REG OUT
IC901
TEA2261
REG CONT
Q951
JC501-R
ERROR AMP
VR951
20K
DC-SET
PC951
TCDT1124G
Q451
Q450
HJ
CX
8V
5V
20V
29V
LIVE
COLD
B
ACL

⑨0.35Vp-p(V)

⑩54Vp-p(V)

⑪0.68Vp-p(H)

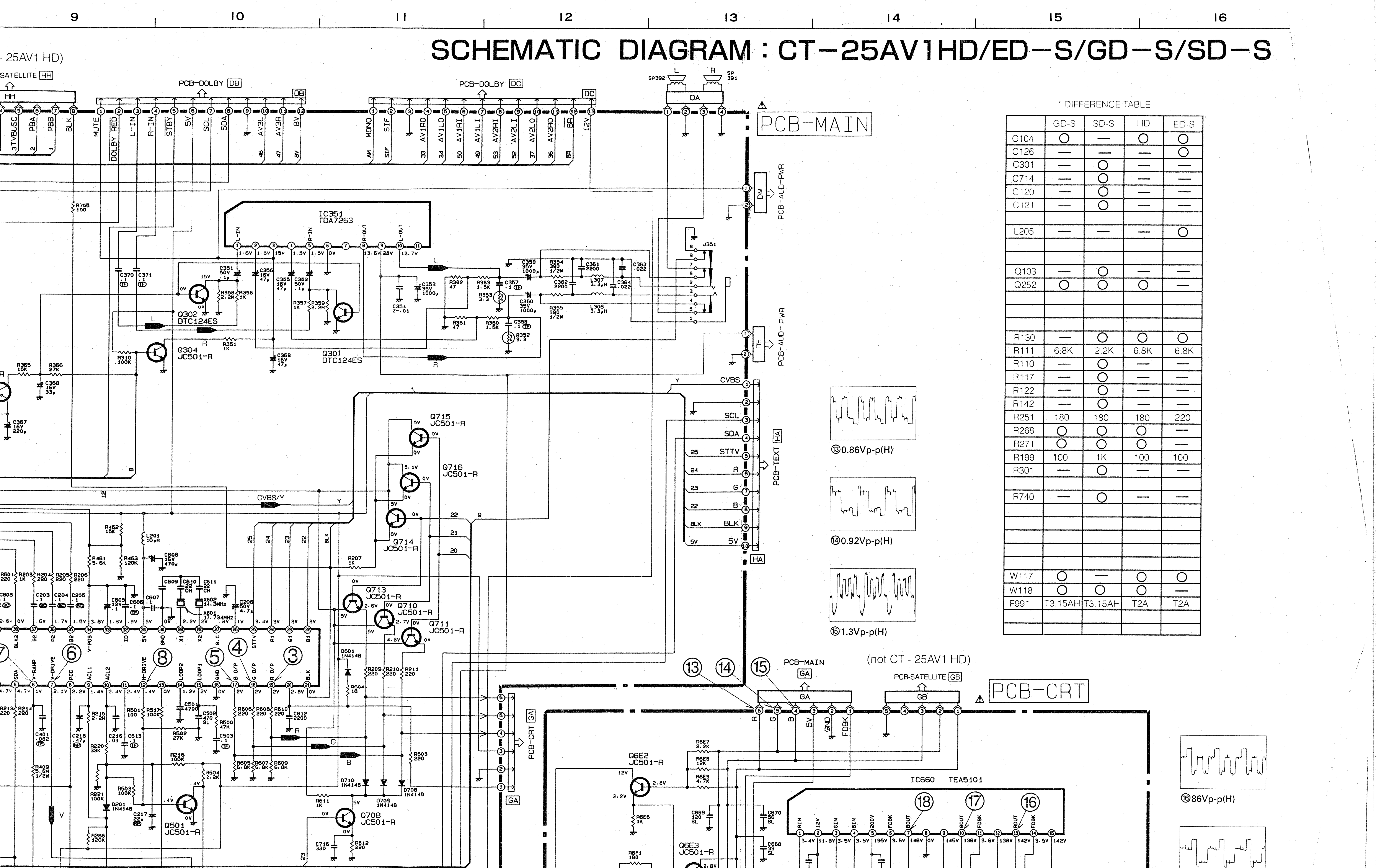
⑫146Vp-p(H)

⑧0.62Vp-p(H)

PCB-SATELLITE HJ

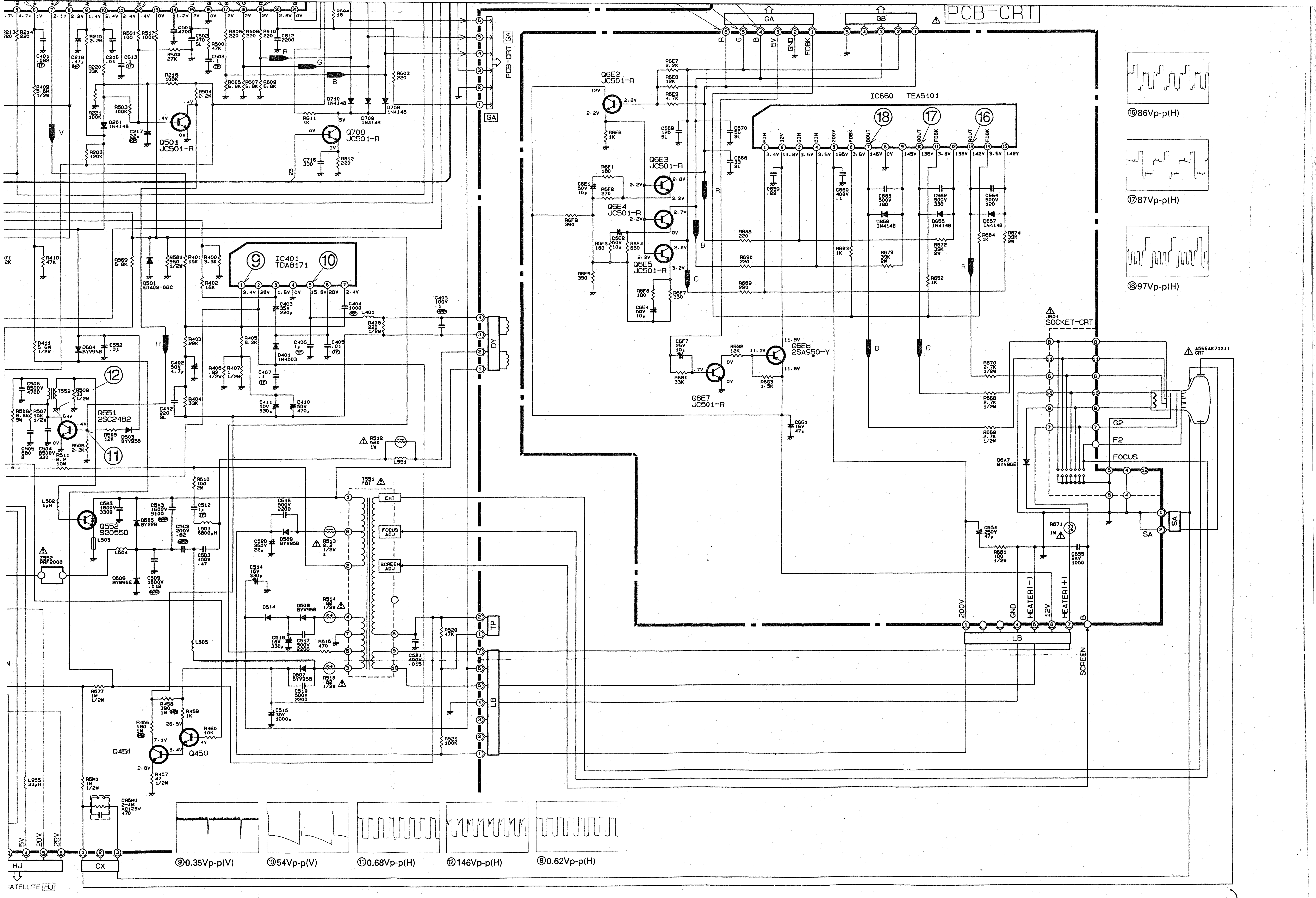
(not CT - 25AV1 HD)

SCHEMATIC DIAGRAM : CT−25AV1HD/ED−S/GD−S/SD−S


9
10
11
12
13
14
15
16
- 25AV1 HD)
SATELLITE HH
PCB-DOLBY DB
PCB-DOLBY DC
SP392
SP391
L
R
DA
PCB-MAIN
DM
PCB-AUD-PWR
DE
PCB-AUD-PWR
3TVBUSC
PBA
PBB
BLK
MUTE
DOLBY RED
L-IN
R-IN
STBY
5V
SCL
SDA
AV3L
AV3R
8V
MONO
SIF
AV1RO
AV1LO
AV1RI
AV1LI
AV2RI
AV2LI
AV2LO
AV2RO
BR
12V
IC351
TDA7263
R755 100
J351
Q302 DTC124ES
Q304 JC501-R
Q301 DTC124ES
R310 100K
R351 1K
R365 10K
R366 27K
C370 .1
C371 .1
C351 50V .1
C356 16V 47
C355 16V 47
C352 50V .1
C353 35V 1000
C354 2-.01
C357 .1
C358 .1
C359 35V 1000
C360 35V 1000
C361 2200
C362 2200
C363 .022
C364 .022
C369 16V 47
C368 16V 33
C367 16V 220
R354 390 1/2W
R355 390 1/2W
R358 2.2M
R356 1K
R357 1K
R359 2.2M
R362 47
R361 47
R363 1.5K
R360 1.5K
R353 3.3
R352 3.3
L307 3.3μH
L306 3.3μH
CVBS
SCL
SDA
STTV
R
G
B
BLK
5V
PCB-TEXT HA
HA
CVBS/Y
Y
Q715 JC501-R
Q716 JC501-R
Q714 JC501-R
Q713 JC501-R
Q710 JC501-R
Q711 JC501-R
Q708 JC501-R
Q501 JC501-R
D601 1N4148
D710 1N4148
D709 1N4148
D708 1N4148
D201 1N4148
R207 1K
R209 220
R210 220
R211 220
R604 18
R603 220
R611 1K
R612 220
C716 330
R452 15K
R451 5.6K
R453 120K
L201 10μH
C608 16V 470
C609
C610 22 CH
C611 22 CH
X502 14.3MHz
X601 17.734MHz
C206 50V 4.7
C605 12V .1
C606 .1
C607 .1
C203 .1
C204 .1
C205 .1
C603 .1
R601 220
R203 1K
R204 220
R205 220
R206 220
R213 220
R214 220
R215 2.2M
R501 100
R517 100K
C504 4700
C502 470 SL
R500 47K
C503 .1
R502 27K
R606 220
R608 220
R610 220
C612 2200
R605 6.8K
R607 6.8K
R609 6.8K
R216 100K
R504 2.2K
R503 100K
R221 100K
C217 22
R220 33K
C218 47
C216 .01
C613 .1
C401 .082
R409 5.6M 1/2W
R286 120K
V-RAMP
V-DRIVE
PCC
CCL1
CCL2
H-DRIVE
LOOP2
LOOP1
GND
B O/P
G O/P
R O/P
BLK
V-POS
ID
5V
GND
X1
X2
S.C
STTV
R1
G1
B1
SDA
BLK2
G2
R2
B2
PCB-CRT GA
GA
(not CT - 25AV1 HD)
PCB-MAIN
GA
PCB-SATELLITE GB
GB
PCB-CRT
R
G
B
5V
GND
FDBK
Q6E2 JC501-R
Q6E3 JC501-R
R6E7 2.2K
R6E8 12K
R6E9 4.7K
R6E6 1K
R6F1 180
C669 120 SL
C670 56 SL
C668 33 SL
IC660 TEA5101
RIN
12V
GIN
BIN
200V
FDBK
BOUT
GOUT
FDBK
ROUT
FDBK
⑬0.86Vp-p(H)
⑭0.92Vp-p(H)
⑮1.3Vp-p(H)
⑯86Vp-p(H)

* DIFFERENCE TABLE

	GD-S	SD-S	HD	ED-S
C104	○	—	○	○
C126	—	—	—	○
C301	—	○	—	—
C714	—	○	—	—
C120	—	○	—	—
C121	—	○	—	—
L205	—	—	—	○
Q103	—	○	—	—
Q252	○	○	○	—
R130	—	○	○	○
R111	6.8K	2.2K	6.8K	6.8K
R110	—	○	—	—
R117	—	○	—	—
R122	—	○	—	—
R142	—	○	—	—
R251	180	180	180	220
R268	○	○	○	—
R271	○	○	○	—
R199	100	1K	100	100
R301	—	○	—	—
R740	—	○	—	—
W117	○	—	○	○
W118	○	○	○	—
F991	T3.15AH	T3.15AH	T2A	T2A

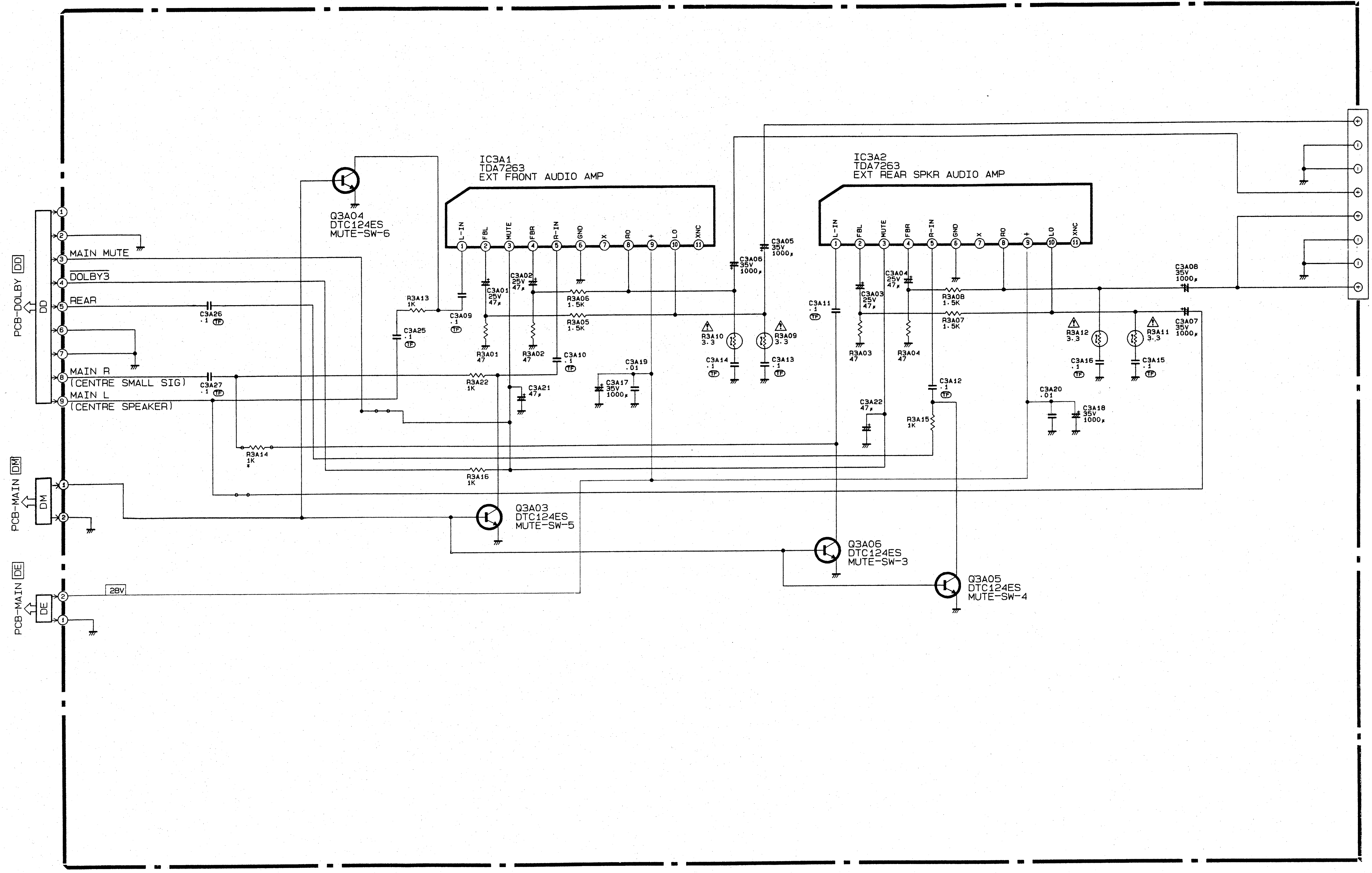

PCB-CRT
PCB-CRT GA
GA
GB
R
G
B
5V
GND
FDBK
IC660 TEA5101
⑯ ⑰ ⑱
RIN 12V GIN BIN 200V FDBK BOUT GOUT ROUT
3.4V 11.8V 3.5V 3.5V 195V 3.6V 146V 0V 145V 136V 3.6V 138V 142V 3.5V 142V
Q6E2 JC501-R
Q6E3 JC501-R
Q6E4 JC501-R
Q6E5 JC501-R
Q6E7 JC501-R
Q6E8 2SA950-Y
J601 SOCKET-CRT
A59EAK71X11 CRT
G2
F2
FOCUS
SA
200V
GND
HEATER(-)
12V
HEATER(+)
LB
SCREEN
⑯86Vp-p(H)
⑰87Vp-p(H)
⑱97Vp-p(H)
IC401 TDAB171
⑨ ⑩
2.4V 28V 1.6V 0V 15.8V 28V 2.4V
DY
TP
Q501 JC501-R
Q708 JC501-R
D710 1N4148
D709 1N4148
D708 1N4148
Q551 2SC2482
Q552 S2055D
T552
T551 FBT
EHT
FOCUS ADJ
SCREEN ADJ
Z552 PRF2000
Q451
Q450
⑫
⑪
D501 EQA02-08C
D504 BYV95B
D505 BY228
D506 BYW96E
D509 BYV95B
D508 BYV95B
D507 BYV95B
D514
D401 1N4003
L401
L502
L503
L504
L505
L551
L955 33μH
CR5M1
5V
20V
29V
HJ
CX
⑨0.35Vp-p(V)
⑩54Vp-p(V)
⑪0.68Vp-p(H)
⑫146Vp-p(H)
⑧0.62Vp-p(H)

ATELLITE HJ

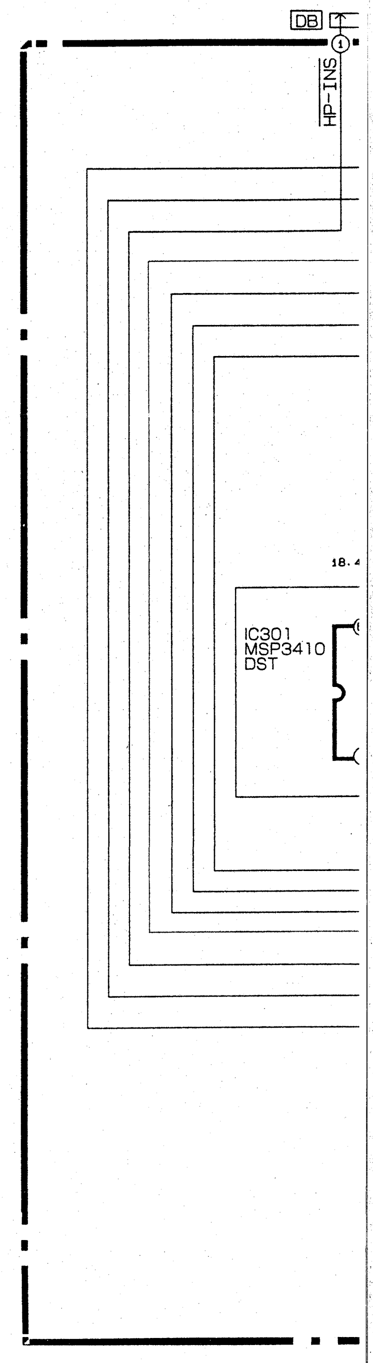
· 25AV1 HD)

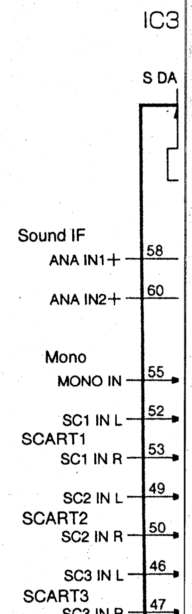
2

⚠ PCB−AUD−PWR (CT - 25AV1GD-S, SD-S, ED-S, HD)

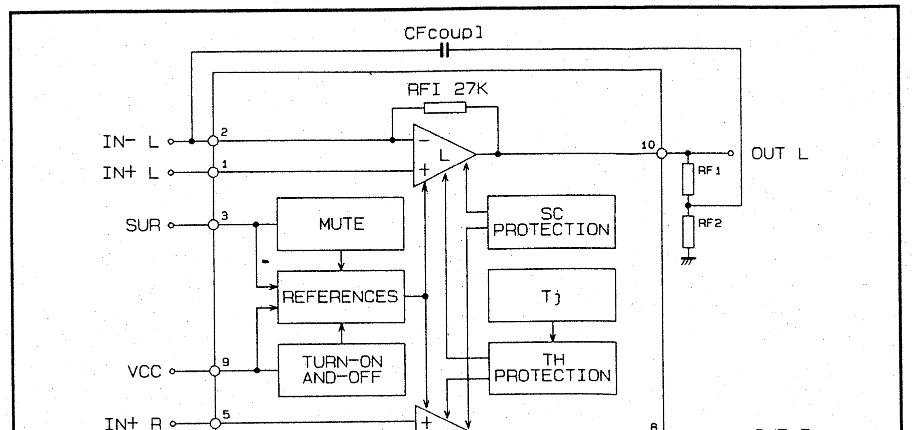

1
2
3
4
5
6
7
8
A
B
C
D
E
F
PCB-DOLBY DD
DD
MAIN MUTE
DOLBY3
REAR
MAIN R
(CENTRE SMALL SIG)
MAIN L
(CENTRE SPEAKER)
PCB-MAIN DM
DM
PCB-MAIN DE
DE
28V
Q3A04
DTC124ES
MUTE-SW-6
Q3A03
DTC124ES
MUTE-SW-5
Q3A06
DTC124ES
MUTE-SW-3
Q3A05
DTC124ES
MUTE-SW-4
IC3A1
TDA7263
EXT FRONT AUDIO AMP
IC3A2
TDA7263
EXT REAR SPKR AUDIO AMP
L-IN
FBL
MUTE
FBR
R-IN
GND
X
RO
+
LO
XNC
C3A26 .1 TF
C3A27 .1 TF
C3A25 .1 TF
R3A13 1K
C3A09 .1 TF
C3A01 25V 47μ
C3A02 25V 47μ
R3A01 47
R3A02 47
R3A06 1.5K
R3A05 1.5K
C3A10 .1 TF
R3A22 1K
C3A21 47μ
C3A19 .01
C3A17 35V 1000μ
R3A14 1K *
R3A16 1K
C3A06 35V 1000μ
C3A05 35V 1000μ
⚠ R3A10 3.3
⚠ R3A09 3.3
C3A14 .1 TF
C3A13 .1 TF
C3A11 .1 TF
C3A03 25V 47μ
C3A04 25V 47μ
R3A03 47
R3A04 47
R3A08 1.5K
R3A07 1.5K
C3A22 47μ
C3A12 .1 TF
R3A15 1K
C3A20 .01
C3A18 35V 1000μ
⚠ R3A12 3.3
⚠ R3A11 3.3
C3A16 .1 TF
C3A15 .1 TF
C3A08 35V 1000μ
C3A07 35V 1000μ
JA301
L
EXT FRONT SPKR OUTPUT
R
L
EXT REAR SPKR OUTPUT
R

⚠ PCB-SOUND

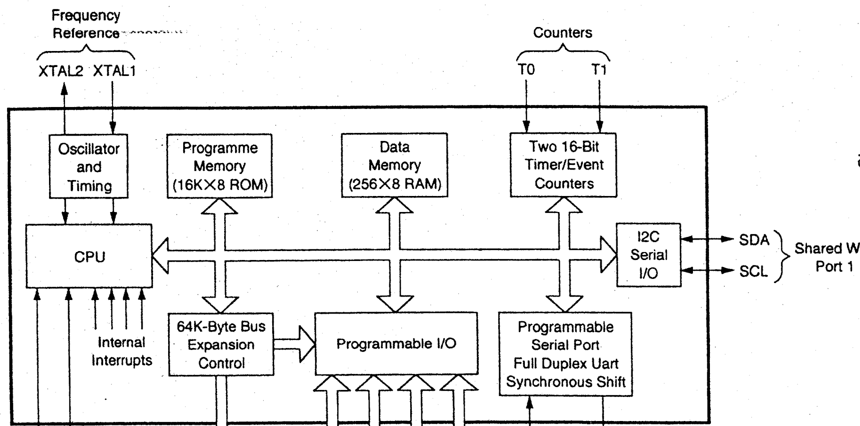

DB
HP-INS
18.4
IC301
MSP3410
DST


IC3
S DA
Sound IF
ANA IN1+
58
ANA IN2+
60
Mono
MONO IN
55
SC1 IN L
52
SCART1
SC1 IN R
53
SC2 IN L
49
SCART2
SC2 IN R
50
SC3 IN L
46
SCART3
47

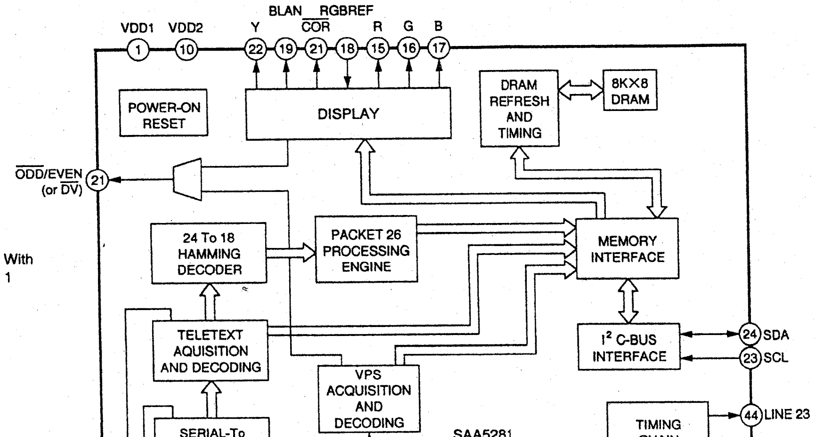
BLOCK DIAGRAM FOR TDA7263


CFcoupl
RFI 27K
IN− L
IN+ L
SUR
VCC
IN+ R
2
1
3
9
5
10
8
L
MUTE
REFERENCES
TURN-ON AND-OFF
SC PROTECTION
Tj
TH PROTECTION
OUT L
RF1
RF2

IC7702 PCB83C654P


Frequency Reference
XTAL2
XTAL1
Counters
T0
T1
Oscillator and Timing
Programme Memory (16K×8 ROM)
Data Memory (256×8 RAM)
Two 16-Bit Timer/Event Counters
CPU
I2C Serial I/O
SDA
SCL
Shared With Port 1
Internal Interrupts
64K-Byte Bus Expansion Control
Programmable I/O
Programmable Serial Port Full Duplex Uart Synchronous Shift

IC7701 SAA5281ZP/E


VDD1
VDD2
Y
BLAN
COR
RGBREF
R
G
B
1
10
22
19
21
18
15
16
17
POWER-ON RESET
DISPLAY
DRAM REFRESH AND TIMING
8K×8 DRAM
ODD/EVEN (or DV)
21
24 To 18 HAMMING DECODER
PACKET 26 PROCESSING ENGINE
MEMORY INTERFACE
TELETEXT AQUISITION AND DECODING
VPS ACQUISITION AND DECODING
I² C-BUS INTERFACE
24 SDA
23 SCL
44 LINE 23
TIMING
SERIAL-To
SAA5281

F

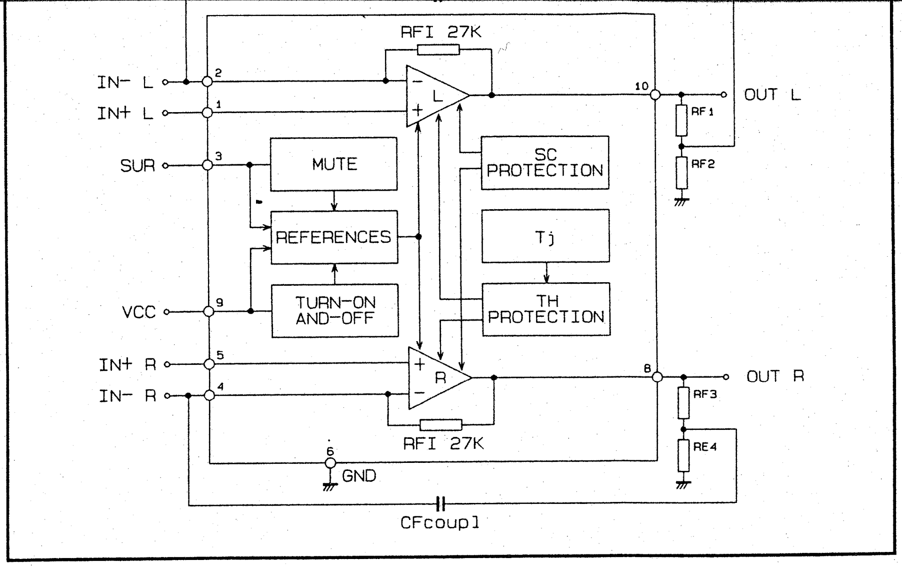
G

H

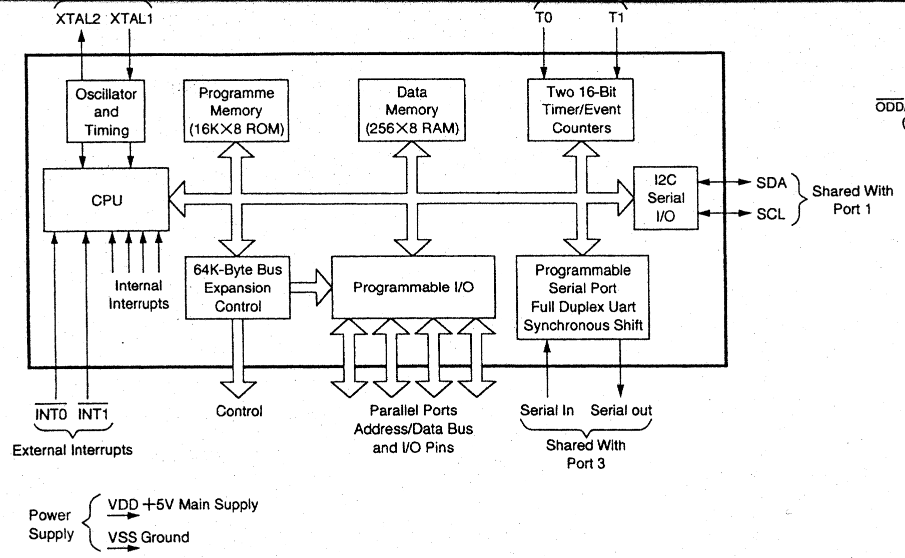
I

J

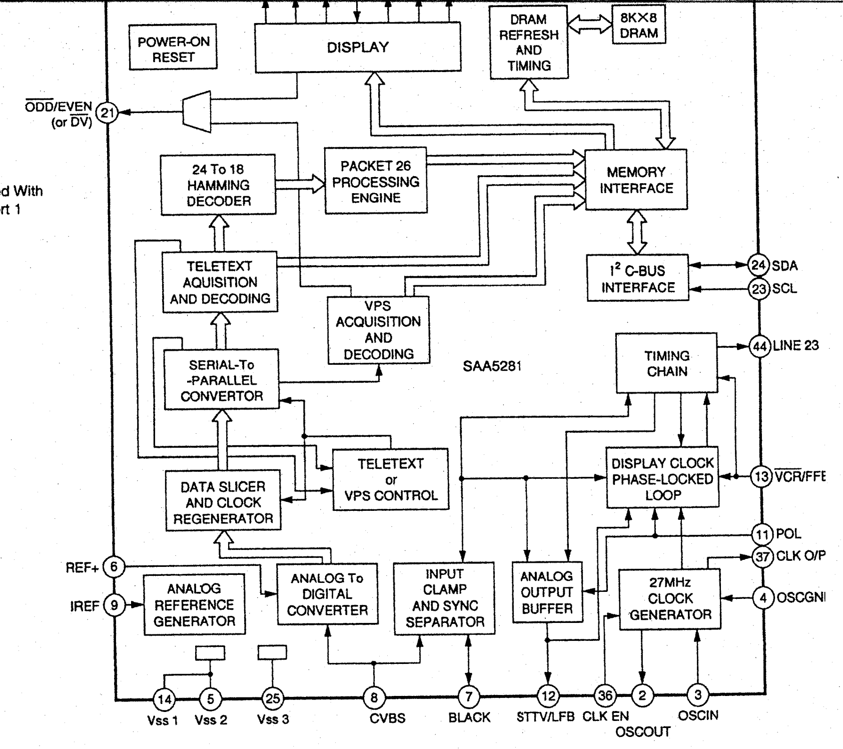
K



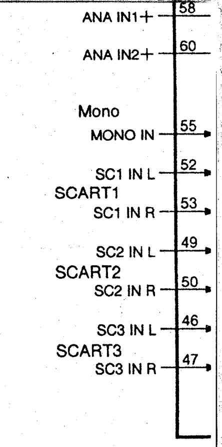
RFI 27K
IN− L
IN+ L
SUR
VCC
IN+ R
IN− R
MUTE
REFERENCES
TURN-ON AND-OFF
SC PROTECTION
Tj
TH PROTECTION
OUT L
OUT R
RF1
RF2
RF3
RE4
GND
RFI 27K
CFcoupl



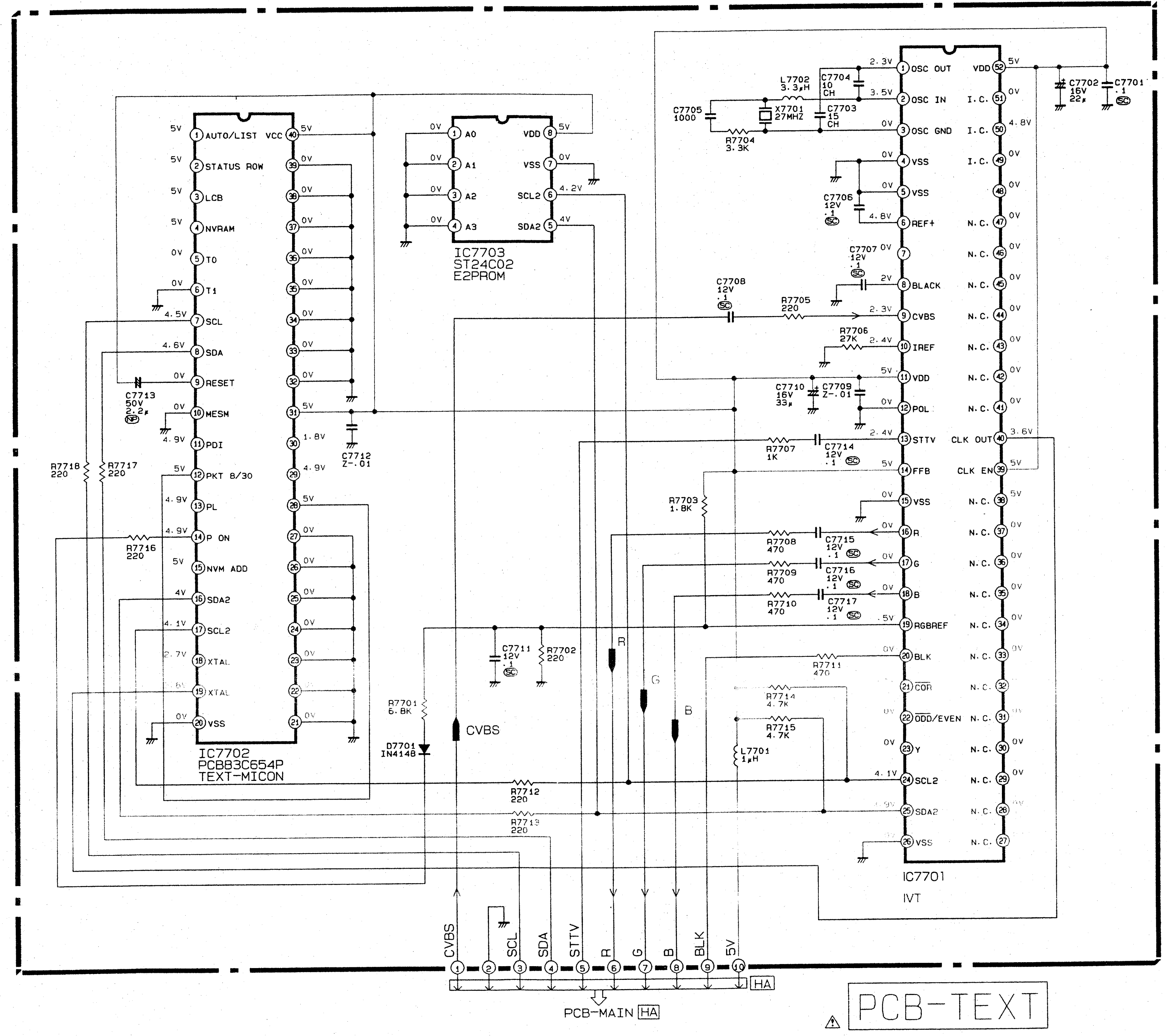
XTAL2 XTAL1
T0 T1
Oscillator and Timing
Programme Memory (16K×8 ROM)
Data Memory (256×8 RAM)
Two 16-Bit Timer/Event Counters
CPU
I2C Serial I/O
SDA
SCL
Shared With Port 1
Internal Interrupts
64K-Byte Bus Expansion Control
Programmable I/O
Programmable Serial Port Full Duplex Uart Synchronous Shift
INT0 INT1
External Interrupts
Control
Parallel Ports Address/Data Bus and I/O Pins
Serial In Serial out
Shared With Port 3
Power Supply
VDD +5V Main Supply
VSS Ground



POWER-ON RESET
DISPLAY
DRAM REFRESH AND TIMING
8K×8 DRAM
ODD/EVEN (or DV)
24 To 18 HAMMING DECODER
PACKET 26 PROCESSING ENGINE
MEMORY INTERFACE
TELETEXT AQUISITION AND DECODING
VPS ACQUISITION AND DECODING
I² C-BUS INTERFACE
SDA
SCL
SERIAL-To -PARALLEL CONVERTOR
SAA5281
TIMING CHAIN
LINE 23
TELETEXT or VPS CONTROL
DISPLAY CLOCK PHASE-LOCKED LOOP
VCR/FFB
DATA SLICER AND CLOCK REGENERATOR
POL
CLK O/P
REF+
IREF
ANALOG REFERENCE GENERATOR
ANALOG To DIGITAL CONVERTER
INPUT CLAMP AND SYNC SEPARATOR
ANALOG OUTPUT BUFFER
27MHz CLOCK GENERATOR
OSCGNI
Vss 1 Vss 2 Vss 3
CVBS
BLACK
STTV/LFB
CLK EN
OSCOUT
OSCIN

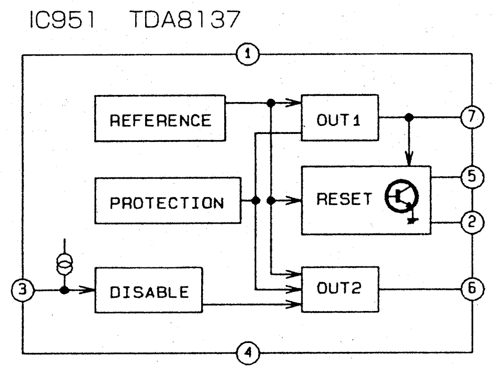


ANA IN1+ 58
ANA IN2+ 60
Mono
MONO IN 55
SCART1
SC1 IN L 52
SC1 IN R 53
SCART2
SC2 IN L 49
SC2 IN R 50
SCART3
SC3 IN L 46
SC3 IN R 47

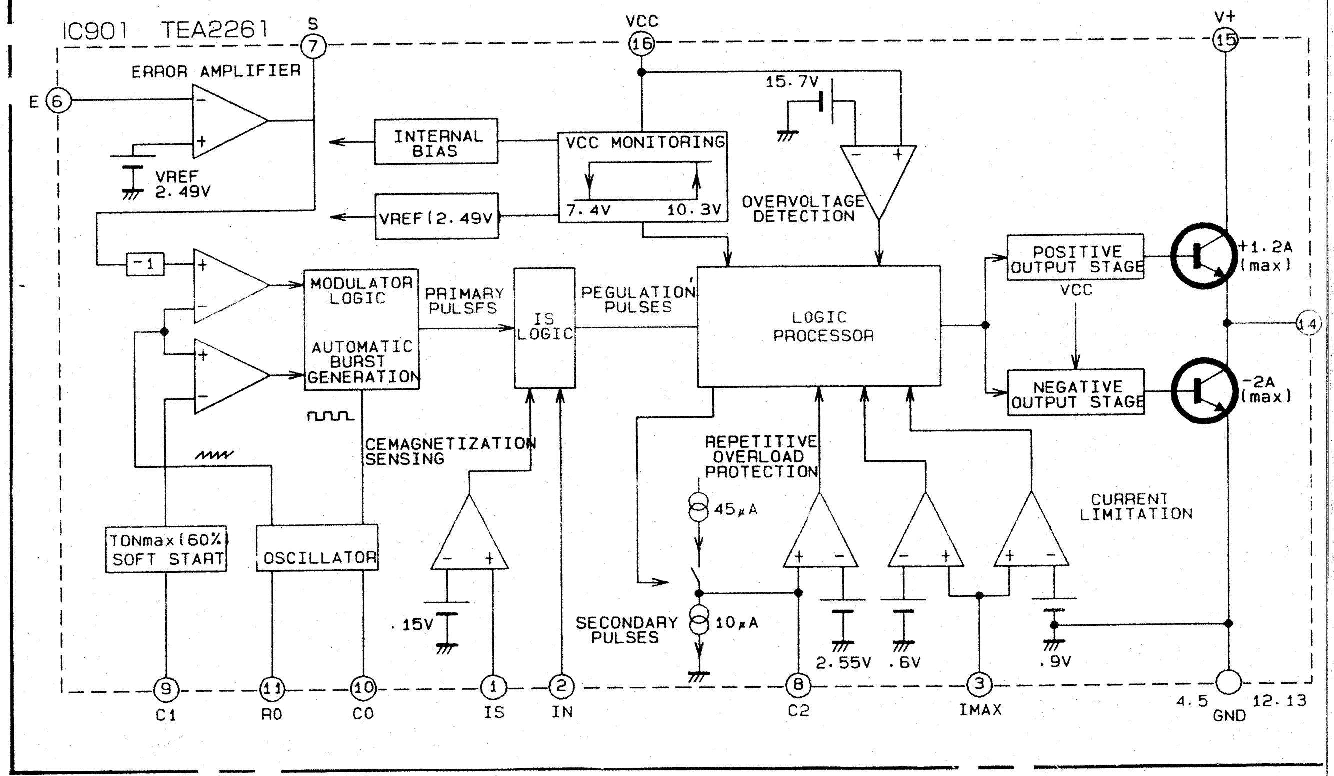


IC7702
PCB83C654P
TEXT-MICON
AUTO/LIST
STATUS ROW
LCB
NVRAM
T0
T1
SCL
SDA
RESET
MESM
PDI
PKT 8/30
PL
P ON
NVM ADD
SDA2
SCL2
XTAL
XTAL
VSS
VCC
IC7703
ST24C02
E2PROM
A0 A1 A2 A3
VDD VSS SCL2 SDA2
IC7701
IVT
OSC OUT
OSC IN
OSC GND
VSS
REF+
BLACK
CVBS
IREF
VDD
POL
STTV
FFB
R
G
B
RGBREF
BLK
COR
ODD/EVEN
Y
SCL2
SDA2
CLK OUT
CLK EN
I.C.
N.C.
X7701 27MHZ
L7702 3.3μH
C7705 1000
R7704 3.3K
C7713 50V 2.2μ
R7718 220
R7717 220
R7716 220
R7701 6.8K
D7701 1N4148
R7703 1.8K
R7712 220
R7713 220
L7701 1μH
C7702 16V 22μ
C7701 .1
CVBS
R
G
B
CVBS SCL SDA STTV R G B BLK 5V
HA
PCB-MAIN HA

PCB-TEXT



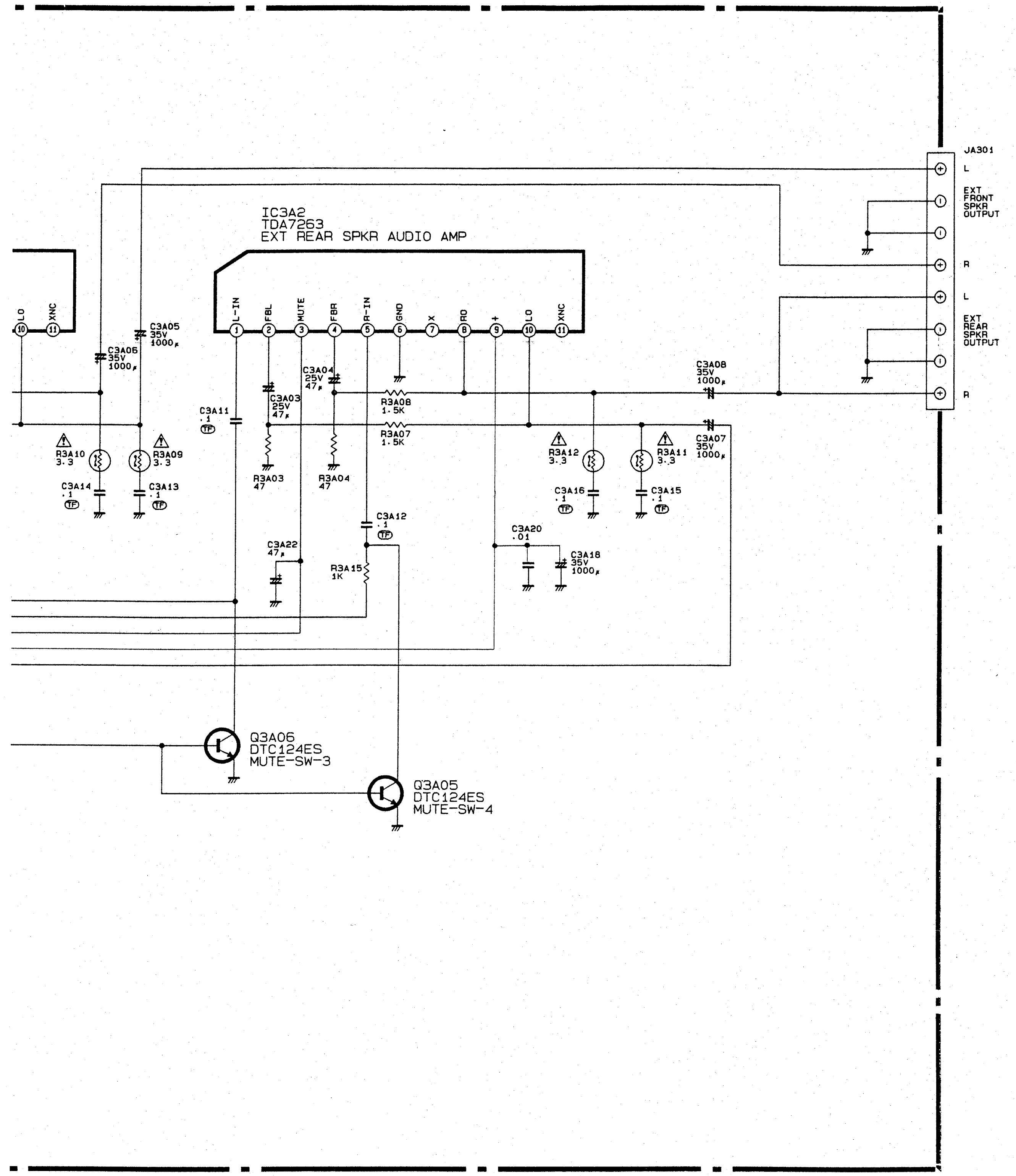
IC951 TDA8137
REFERENCE
PROTECTION
DISABLE
OUT1
RESET
OUT2
1 2 3 4 5 6 7



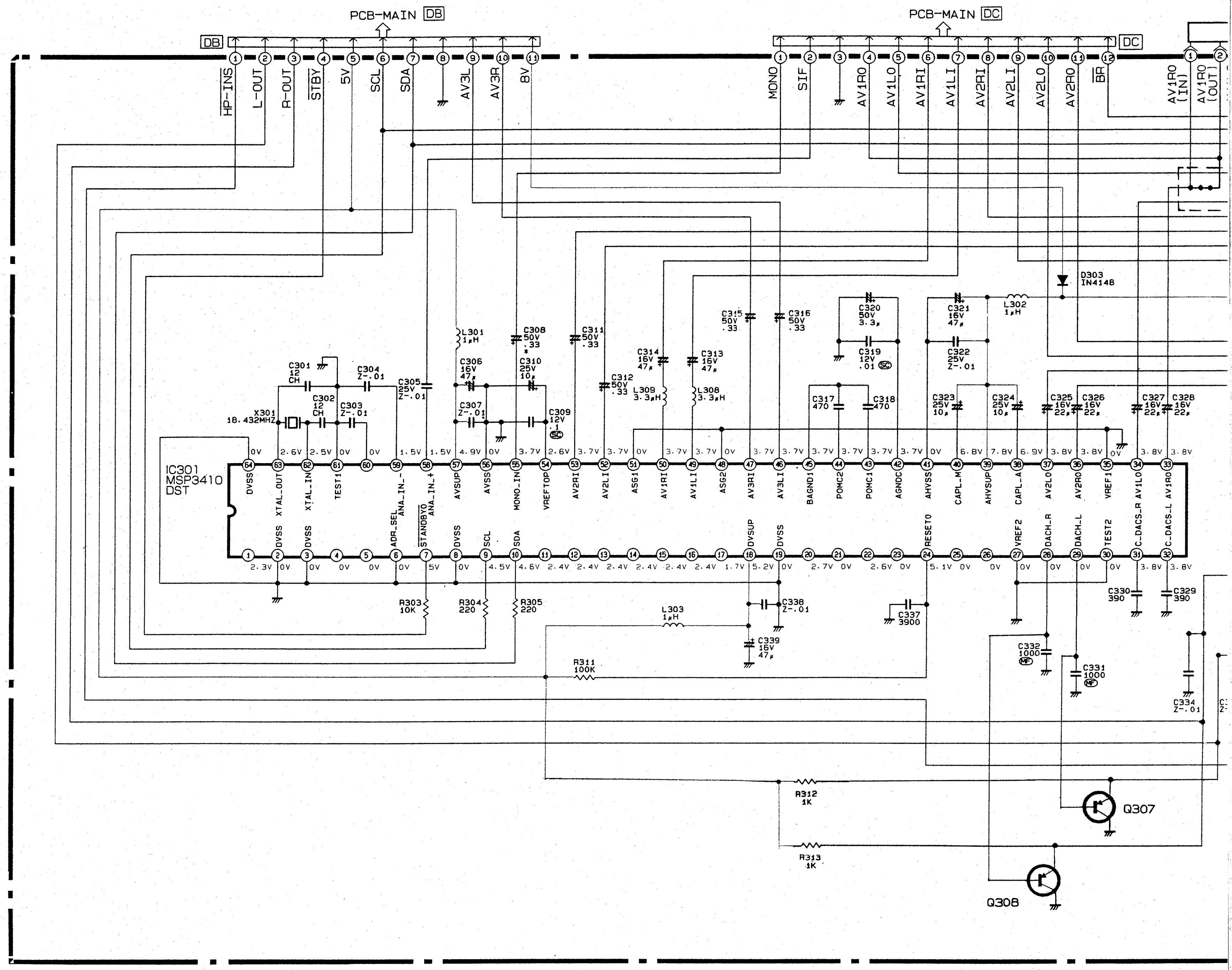
IC901 TEA2261
S
VCC
V+
E
ERROR AMPLIFIER
VREF 2.49V
INTERNAL BIAS
VCC MONITORING
7.4V 10.3V
15.7V
VREF(2.49V
OVERVOLTAGE DETECTION
-1
MODULATOR LOGIC
AUTOMATIC BURST GENERATION
PRIMARY PULSES
IS LOGIC
PEGULATION PULSES
LOGIC PROCESSOR
POSITIVE OUTPUT STAGE
NEGATIVE OUTPUT STAGE
+1.2A (max)
-2A (max)
CEMAGNETIZATION SENSING
REPETITIVE OVERLOAD PROTECTION
45μA
CURRENT LIMITATION
TONmax(60% SOFT START
OSCILLATOR
.15V
SECONDARY PULSES
10μA
2.55V
.6V
.9V
C1 R0 C0 IS IN C2 IMAX GND
4.5 12.13

3

HD)

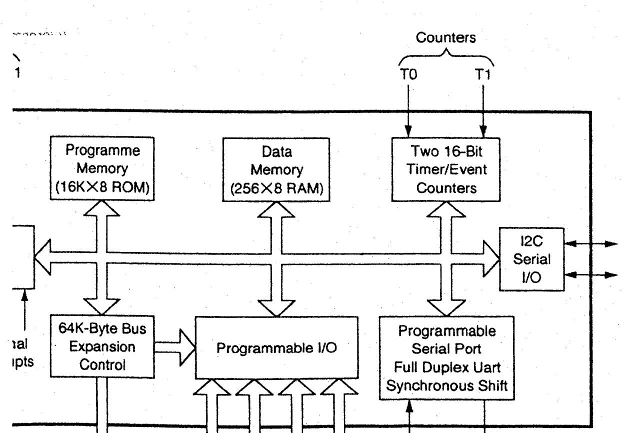

IC3A2
TDA7263
EXT REAR SPKR AUDIO AMP
JA301
EXT FRONT SPKR OUTPUT
EXT REAR SPKR OUTPUT
L
R
Q3A06
DTC124ES
MUTE-SW-3
Q3A05
DTC124ES
MUTE-SW-4
C3A05 35V 1000μ
C3A06 35V 1000μ
C3A08 35V 1000μ
C3A07 35V 1000μ
R3A08 1.5K
R3A07 1.5K
R3A15 1K
C3A18 35V 1000μ

PCB-SOUND (CT-25AV1S-S/E/R)

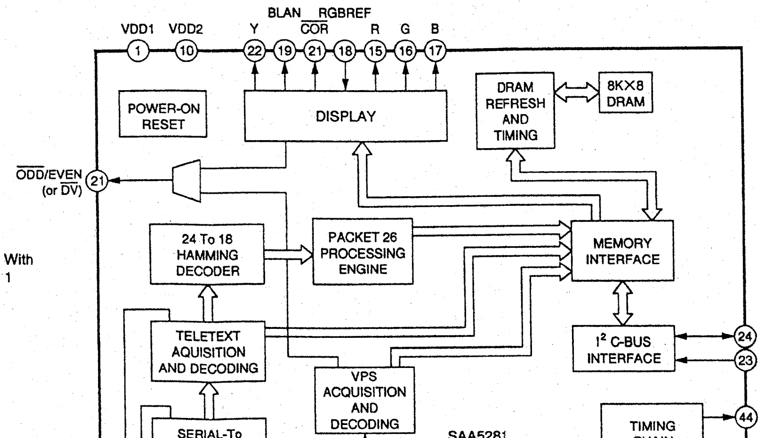

PCB-MAIN DB
PCB-MAIN DC
HP-INS
L-OUT
R-OUT
STBY
5V
SCL
SDA
AV3L
AV3R
8V
MONO
SIF
AV1RO
AV1LO
AV1RI
AV1LI
AV2RI
AV2LI
AV2LO
AV2RO
BR
IC301
MSP3410
DST
X301
18.432MHz
D303
IN4148
L301 1μH
L302 1μH
L303 1μH
R303 10K
R304 220
R305 220
R311 100K
R312 1K
R313 1K
Q307
Q308

⟨IC BLOCK DIAGRAMS

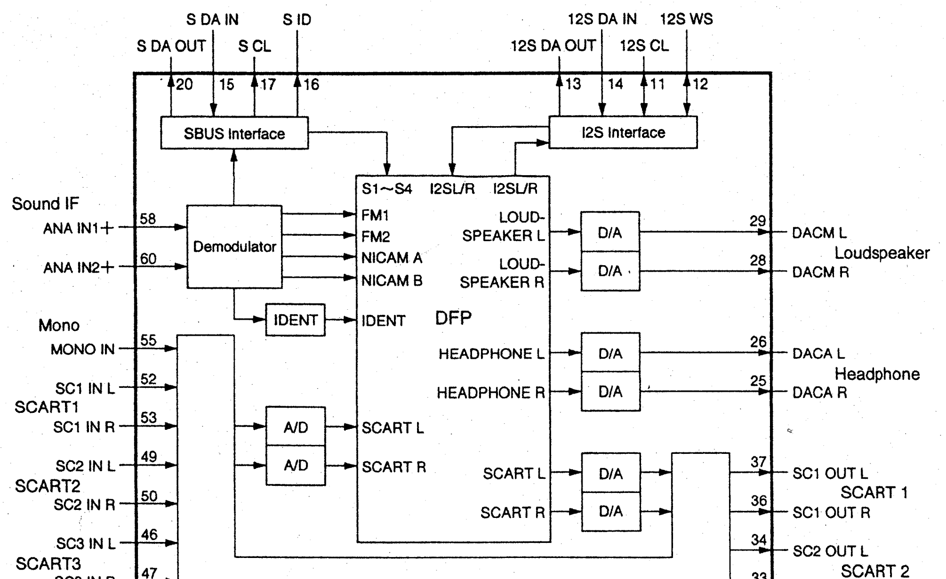
PCB83C654P


Counters
T0
T1
Programme Memory (16K×8 ROM)
Data Memory (256×8 RAM)
Two 16-Bit Timer/Event Counters
I2C Serial I/O
SDA
SCL
Shared With Port 1
64K-Byte Bus Expansion Control
Programmable I/O
Programmable Serial Port Full Duplex Uart Synchronous Shift

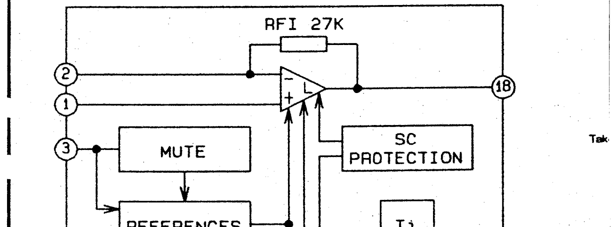
IC7701 SAA5281ZP/E

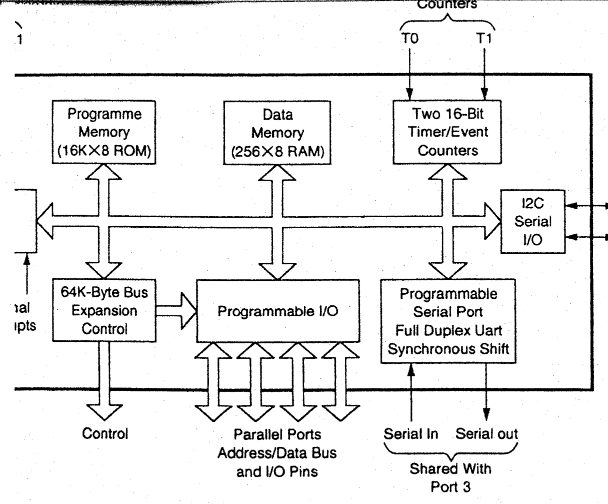

VDD1
VDD2
BLAN
RGBREF
Y
COR
R
G
B
POWER-ON RESET
DISPLAY
DRAM REFRESH AND TIMING
8K×8 DRAM
ODD/EVEN (or DV)
24 To 18 HAMMING DECODER
PACKET 26 PROCESSING ENGINE
MEMORY INTERFACE
TELETEXT AQUISITION AND DECODING
VPS ACQUISITION AND DECODING
I² C-BUS INTERFACE
SDA
SCL
TIMING
LINE 23
SERIAL-To
SAA5281

IC301 MSP3410


S DA IN
S ID
S DA OUT
S CL
12S DA IN
12S WS
12S DA OUT
12S CL
SBUS Interface
I2S Interface
Sound IF
ANA IN1+
ANA IN2+
Demodulator
S1~S4
I2SL/R
FM1
FM2
NICAM A
NICAM B
LOUD-SPEAKER L
LOUD-SPEAKER R
D/A
DACM L
DACM R
Loudspeaker
IDENT
DFP
Mono
MONO IN
HEADPHONE L
HEADPHONE R
DACA L
DACA R
Headphone
SCART1
SC1 IN L
SC1 IN R
A/D
SCART L
SCART R
SCART2
SC2 IN L
SC2 IN R
SC1 OUT L
SC1 OUT R
SCART 1
SCART3
SC3 IN L
SC2 OUT L
SCART 2

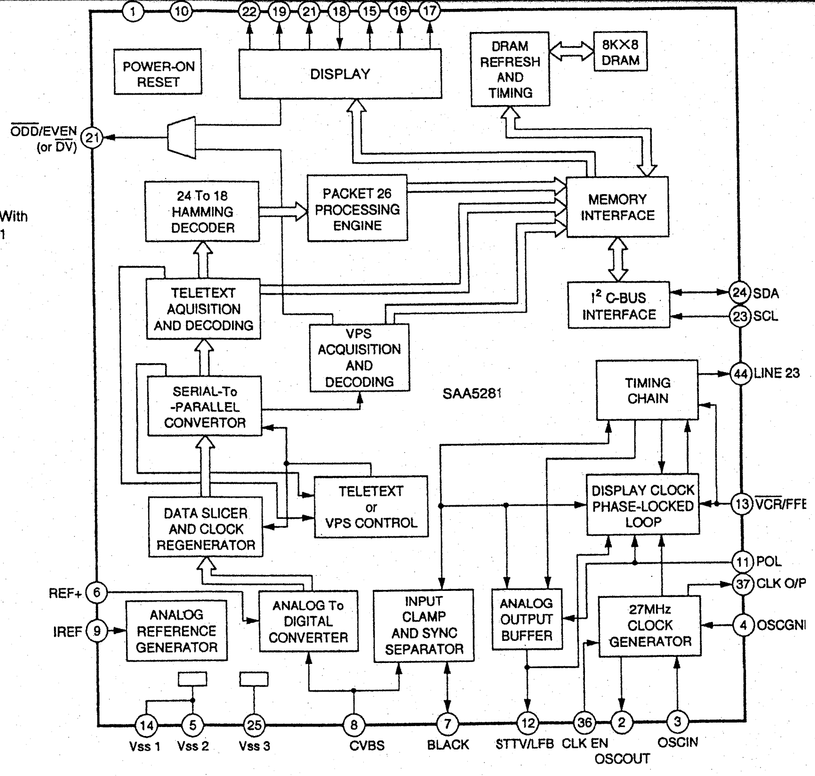
IC351 TDA7263

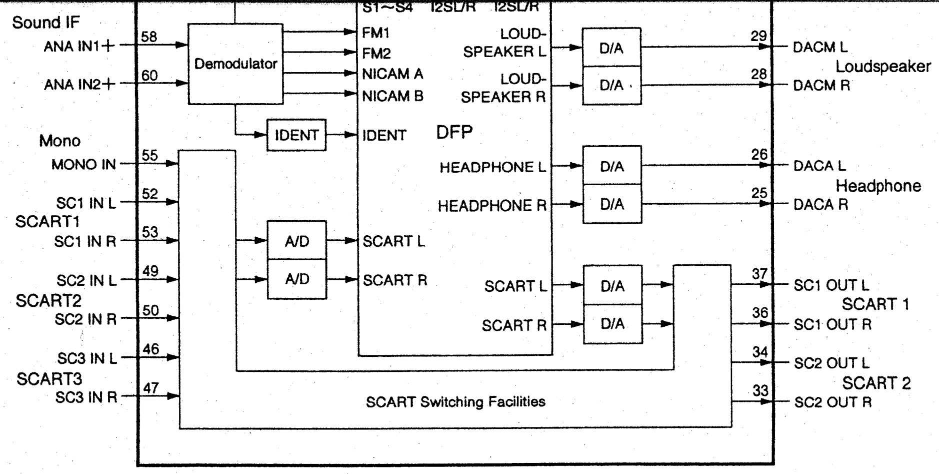

RFI 27K
MUTE
SC PROTECTION
REFERENCES


Counters
T0
T1
Programme Memory (16K×8 ROM)
Data Memory (256×8 RAM)
Two 16-Bit Timer/Event Counters
I2C Serial I/O
SDA
SCL
Shared With Port 1
64K-Byte Bus Expansion Control
Programmable I/O
Programmable Serial Port Full Duplex Uart Synchronous Shift
Control
Parallel Ports Address/Data Bus and I/O Pins
Serial In
Serial out
Shared With Port 3

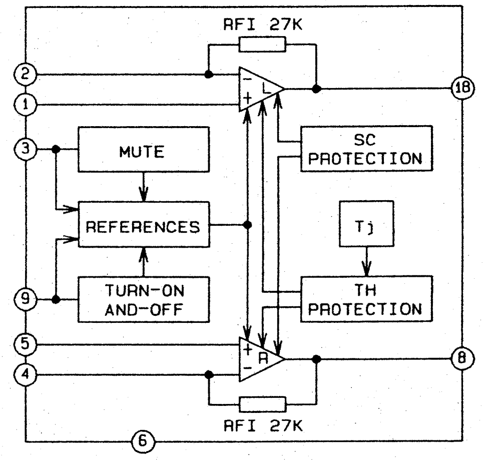
5V Main Supply

round

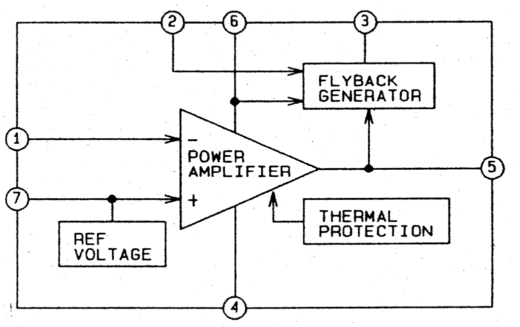

1
10
22
19
21
18
15
16
17
POWER-ON RESET
DISPLAY
DRAM REFRESH AND TIMING
8K×8 DRAM
ODD/EVEN (or DV)
21
24 To 18 HAMMING DECODER
PACKET 26 PROCESSING ENGINE
MEMORY INTERFACE
TELETEXT AQUISITION AND DECODING
VPS ACQUISITION AND DECODING
I² C-BUS INTERFACE
24 SDA
23 SCL
SERIAL-To -PARALLEL CONVERTOR
SAA5281
TIMING CHAIN
44 LINE 23
DATA SLICER AND CLOCK REGENERATOR
TELETEXT or VPS CONTROL
DISPLAY CLOCK PHASE-LOCKED LOOP
13 VCR/FFB
11 POL
37 CLK O/P
REF+ 6
IREF 9
ANALOG REFERENCE GENERATOR
ANALOG To DIGITAL CONVERTER
INPUT CLAMP AND SYNC SEPARATOR
ANALOG OUTPUT BUFFER
27MHz CLOCK GENERATOR
4 OSCGND
14 Vss 1
5 Vss 2
25 Vss 3
8 CVBS
7 BLACK
12 STTV/LFB
36 CLK EN
2 OSCOUT
3 OSCIN

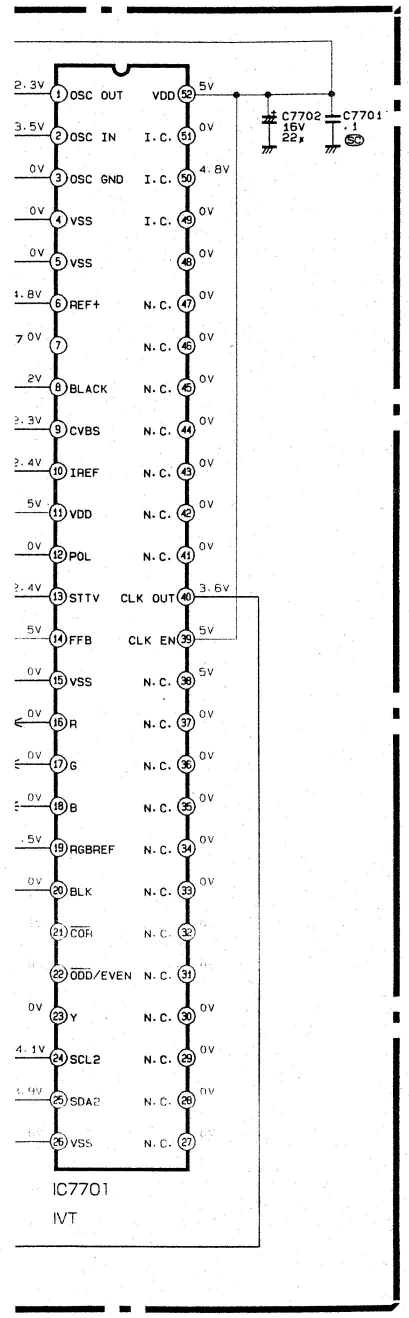

S1~S4
I2SL/R
I2SL/R
Sound IF
ANA IN1+
58
ANA IN2+
60
Demodulator
FM1
FM2
NICAM A
NICAM B
LOUD-SPEAKER L
LOUD-SPEAKER R
D/A
D/A
29 DACM L
28 DACM R
Loudspeaker
Mono
MONO IN
55
IDENT
IDENT
DFP
HEADPHONE L
HEADPHONE R
D/A
D/A
26 DACA L
25 DACA R
Headphone
SCART1
SC1 IN L 52
SC1 IN R 53
A/D
A/D
SCART L
SCART R
SCART2
SC2 IN L 49
SC2 IN R 50
SCART L
SCART R
D/A
D/A
37 SC1 OUT L
36 SC1 OUT R
SCART 1
SCART3
SC3 IN L 46
SC3 IN R 47
SCART Switching Facilities
34 SC2 OUT L
33 SC2 OUT R
SCART 2

IC351 TDA7263


RFI 27K
2
1
18
3
MUTE
SC PROTECTION
REFERENCES
Tj
9
TURN-ON AND-OFF
TH PROTECTION
5
4
8
RFI 27K
6

IC401 TDA8171

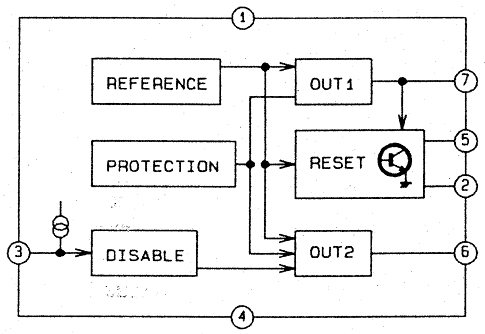

2
6
3
FLYBACK GENERATOR
1
POWER AMPLIFIER
5
7
REF VOLTAGE
THERMAL PROTECTION
4


2.3V
1 OSC OUT
VDD 52
5V
3.5V
2 OSC IN
I.C. 51
0V
0V
3 OSC GND
I.C. 50
4.8V
0V
4 VSS
I.C. 49
0V
0V
5 VSS
48
0V
4.8V
6 REF+
N.C. 47
0V
0V
7
N.C. 46
0V
2V
8 BLACK
N.C. 45
0V
2.3V
9 CVBS
N.C. 44
0V
2.4V
10 IREF
N.C. 43
0V
5V
11 VDD
N.C. 42
0V
0V
12 POL
N.C. 41
0V
2.4V
13 STTV
CLK OUT 40
3.6V
5V
14 FFB
CLK EN 39
5V
0V
15 VSS
N.C. 38
5V
0V
16 R
N.C. 37
0V
0V
17 G
N.C. 36
0V
0V
18 B
N.C. 35
0V
.5V
19 RGBREF
N.C. 34
0V
0V
20 BLK
N.C. 33
0V
21 COR
N.C. 32
22 ODD/EVEN
N.C. 31
0V
23 Y
N.C. 30
0V
4.1V
24 SCL2
N.C. 29
0V
25 SDA2
N.C. 28
0V
26 VSS
N.C. 27
C7702 16V 22μ
C7701 .1
SC

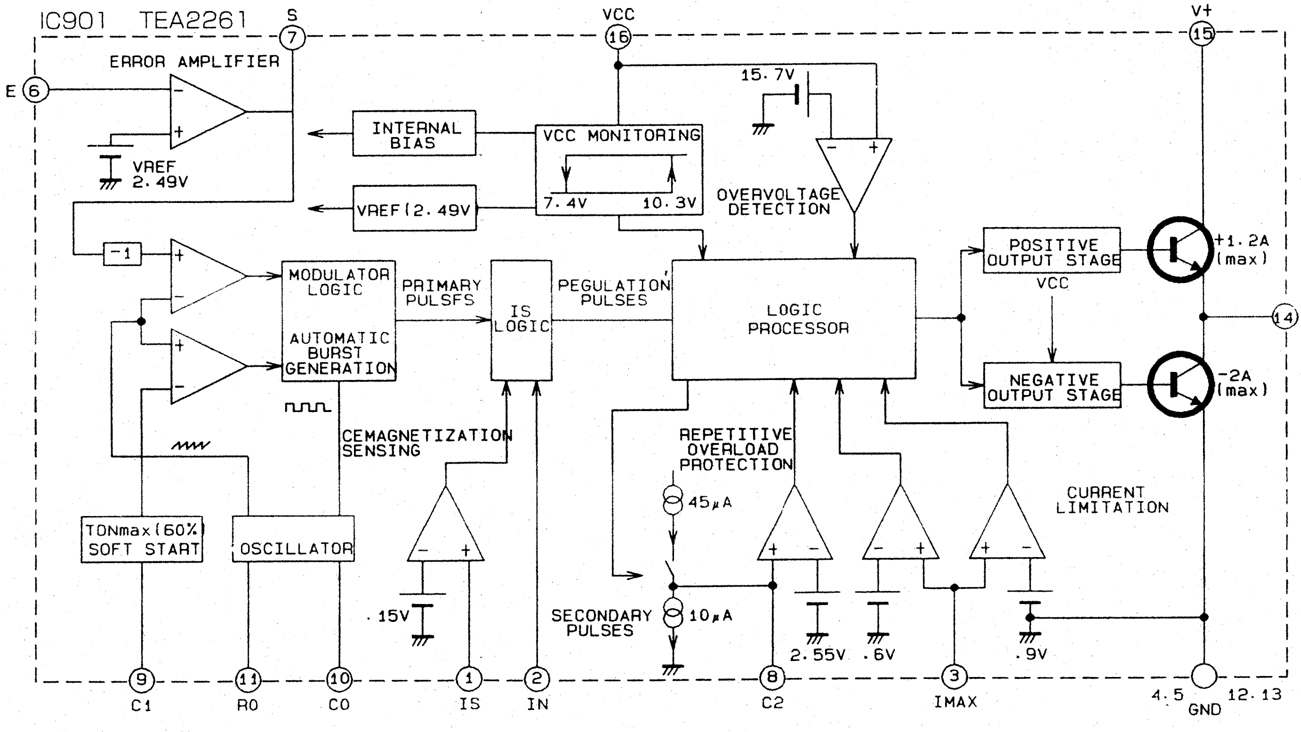
IC7701

IVT

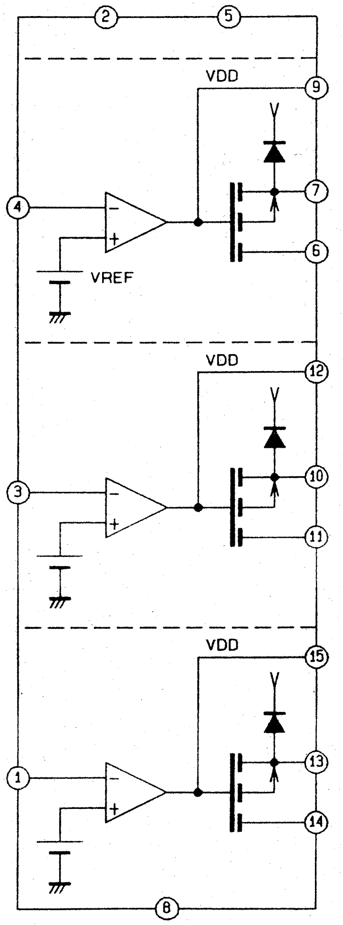
IC951 TDA8137


1
REFERENCE
OUT1
7
PROTECTION
RESET
5
2
3
DISABLE
OUT2
6
4

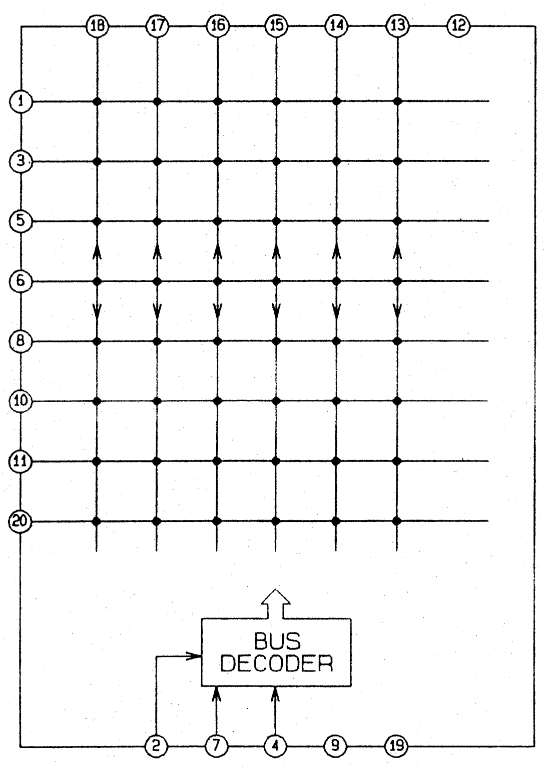
IC901 TEA2261


S
7
VCC
16
V+
15
E 6
ERROR AMPLIFIER
VREF 2.49V
INTERNAL BIAS
VCC MONITORING
15.7V
VREF(2.49V
7.4V
10.3V
OVERVOLTAGE DETECTION
-1
MODULATOR LOGIC
PRIMARY PULSFS
IS LOGIC
PEGULATION PULSES
LOGIC PROCESSOR
POSITIVE OUTPUT STAGE
+1.2A (max)
VCC
NEGATIVE OUTPUT STAGE
-2A (max)
14 OUT
AUTOMATIC BURST GENERATION
CEMAGNETIZATION SENSING
REPETITIVE OVERLOAD PROTECTION
45μA
CURRENT LIMITATION
TONmax(60%) SOFT START
OSCILLATOR
.15V
SECONDARY PULSES
10μA
2.55V
.6V
.9V
9 C1
11 RO
10 CO
1 IS
2 IN
8 C2
3 IMAX
4.5 12.13 GND

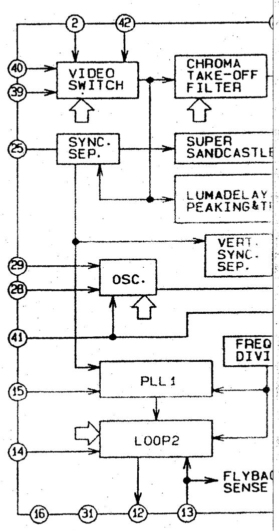
IC660 TEA5101


2
5
VDD
9
4
7
VREF
6
VDD
12
3
10
11
VDD
15
1
13
14
8

IC202 TEA6415C

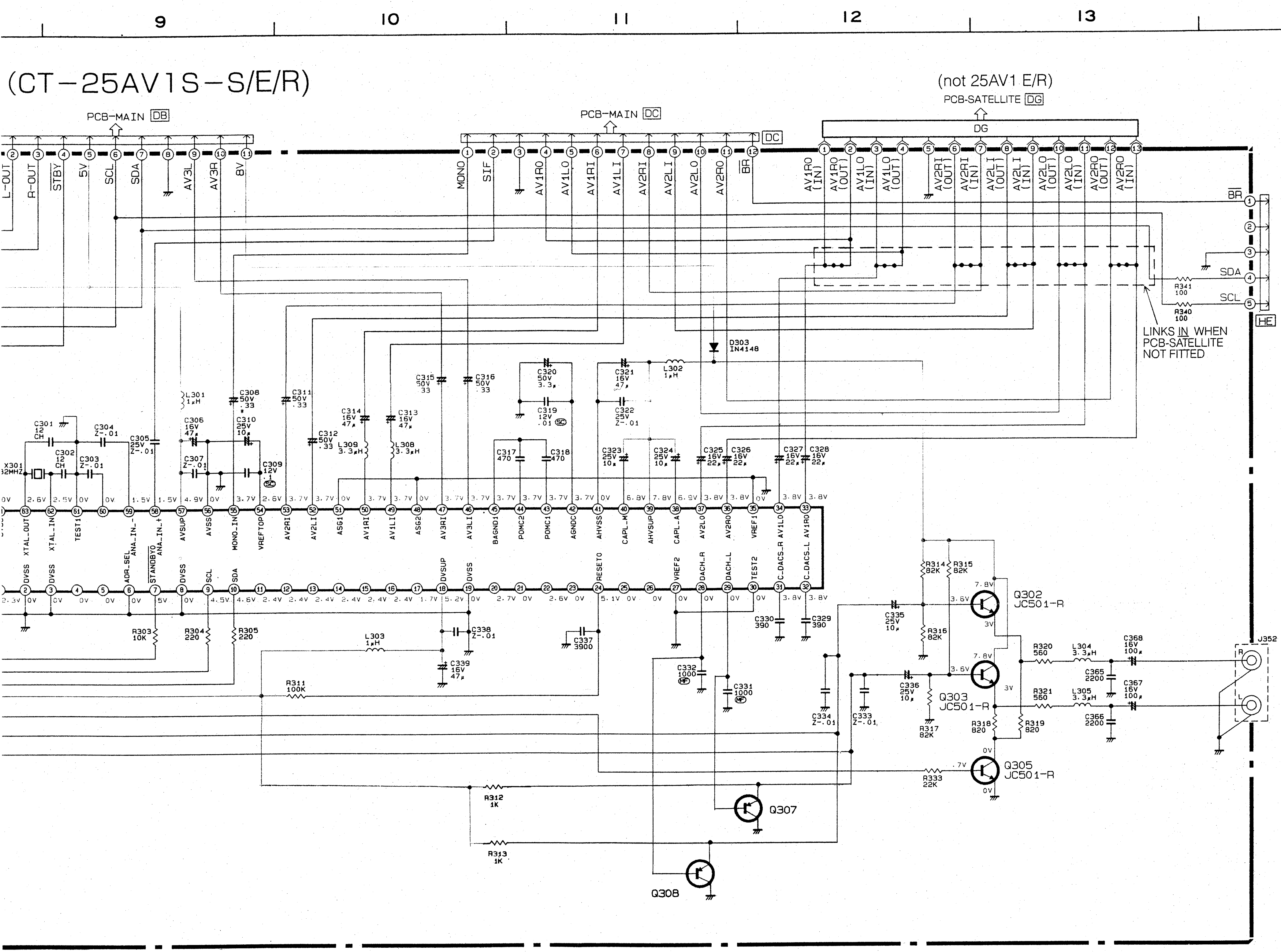

18
17
16
15
14
13
12
1
3
5
6
8
10
11
20
BUS DECODER
2
7
4
9
19

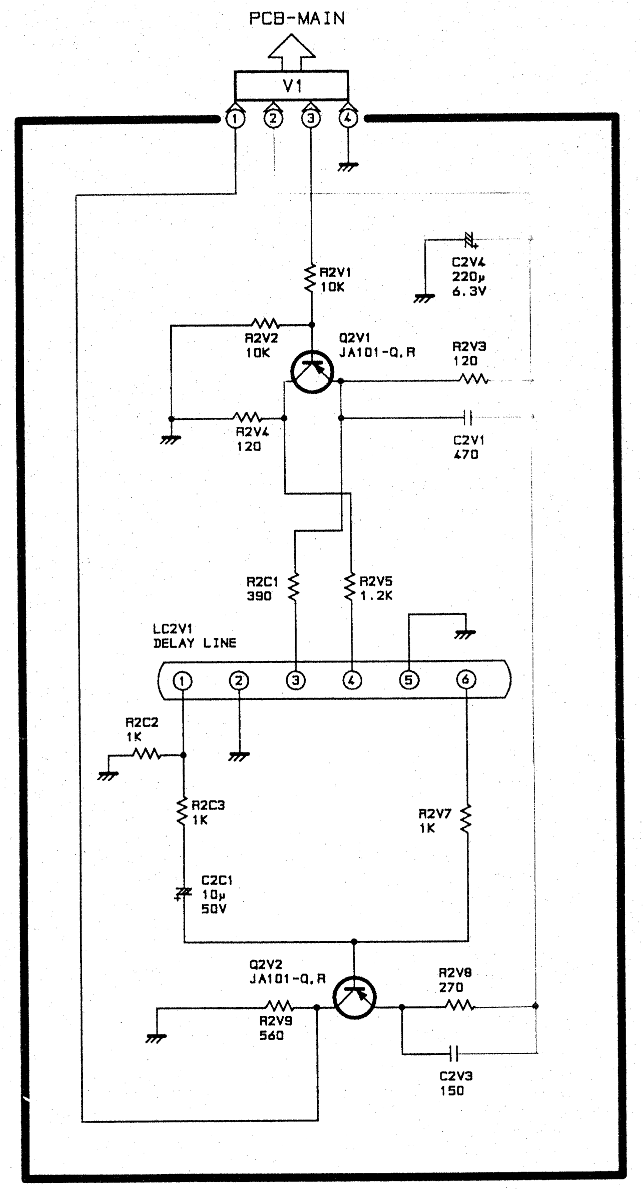
IC201 MC44031


2
42
40
39
VIDEO SWITCH
CHROMA TAKE-OFF FILTER
25
SYNC. SEP.
SUPER SANDCASTLE
LUMADELAY PEAKING&T
VERT. SYNC. SEP.
29
28
OSC.
41
FREQ DIVI
PLL1
15
LOOP2
14
FLYBAC SENSE
16
31
12
13

CB-TEXT

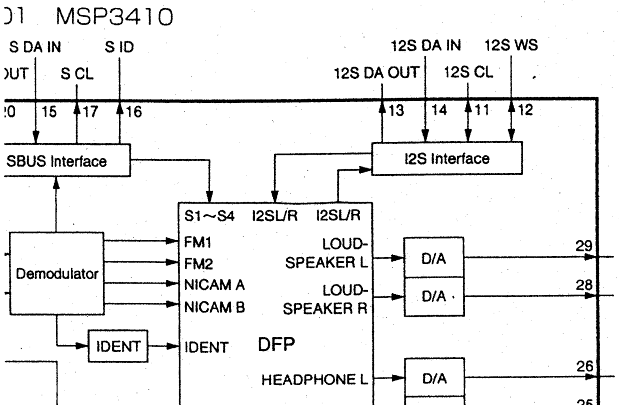
(CT-25AV1S-S/E/R)

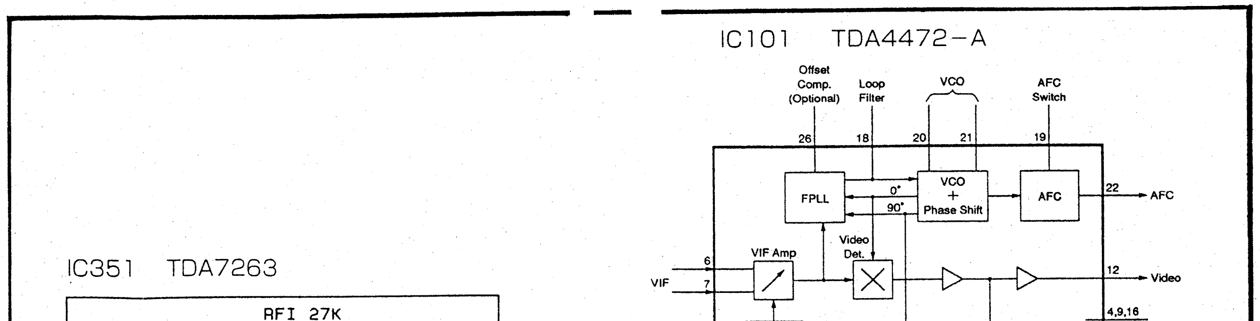

9
10
11
12
13
14
15
16
PCB-MAIN DB
PCB-MAIN DC
(not 25AV1 E/R)
PCB-SATELLITE DG
DG
DC
L-OUT
R-OUT
STBY
5V
SCL
SDA
AV3L
AV3R
8V
MONO
SIF
AV1RO
AV1LO
AV1RI
AV1LI
AV2RI
AV2LI
AV2LO
AV2RO
BR
AV1RO (IN)
AV1RO (OUT)
AV1LO (IN)
AV1LO (OUT)
AV2RI (OUT)
AV2RI (IN)
AV2LI (OUT)
AV2LI (IN)
AV2LO (OUT)
AV2LO (IN)
AV2RO (OUT)
AV2RO (IN)
SDA
SCL
R341 100
R340 100
HE
LINKS IN WHEN PCB-SATELLITE NOT FITTED
D303 IN4148
L302 1μH
X301
Q302 JC501-R
Q303 JC501-R
Q305 JC501-R
Q307
Q308
J352
R312 1K
R313 1K
R311 100K
L303 1μH
R303 10K
R304 220
R305 220
R320 560
R321 560
L304 3.3μH
L305 3.3μH
R333 22K
R314 82K
R315 82K
R316 82K
R317 82K
R318 820
R319 820

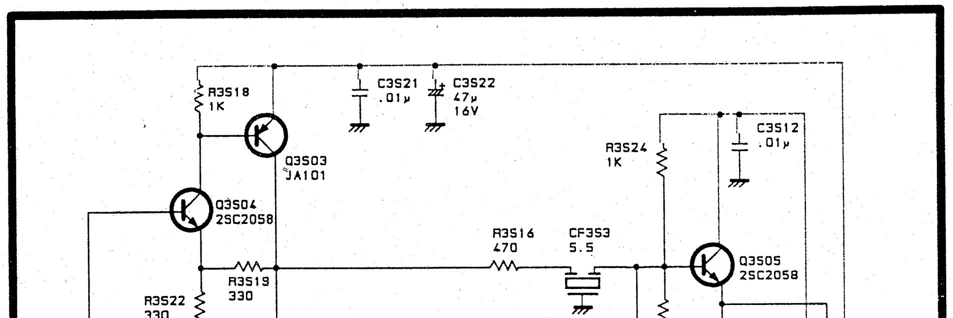

PCB-MAIN
V1
R2V1 10K
R2V2 10K
Q2V1 JA101-Q,R
R2V3 120
R2V4 120
C2V1 470
C2V4 220μ 6.3V
R2C1 390
R2V5 1.2K
LC2V1 DELAY LINE
R2C2 1K
R2C3 1K
C2C1 10μ 50V
R2V7 1K
Q2V2 JA101-Q,R
R2V8 270
R2V9 560
C2V3 150

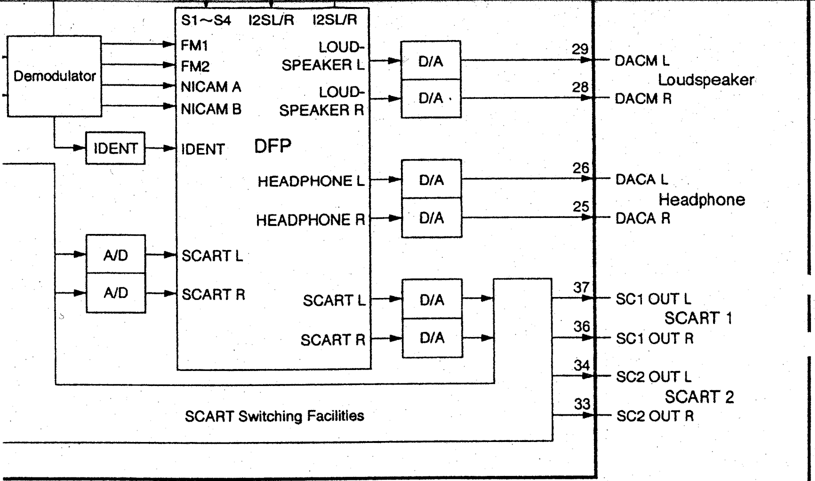
⚠ PCB-DELAY
(25AV1E/R/ED-S)

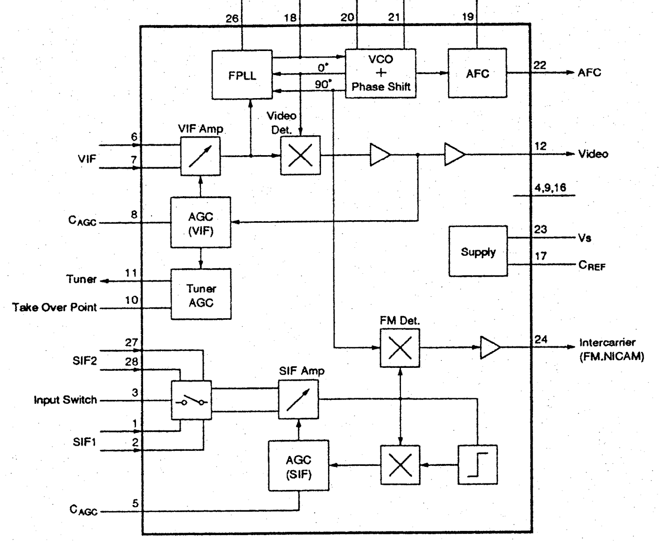
〈IC BLOCK DIAGRAMS OF PCB-MAIN AND CRT〉


)1 MSP3410
S DA IN
S ID
OUT
S CL
I2S DA IN
I2S WS
I2S DA OUT
I2S CL
SBUS Interface
I2S Interface
Demodulator
IDENT
S1~S4
I2SL/R
FM1
FM2
NICAM A
NICAM B
LOUD-SPEAKER L
LOUD-SPEAKER R
D/A
DACM L
DACM R
Loudspeaker
DFP
HEADPHONE L
DACA L
Headphone

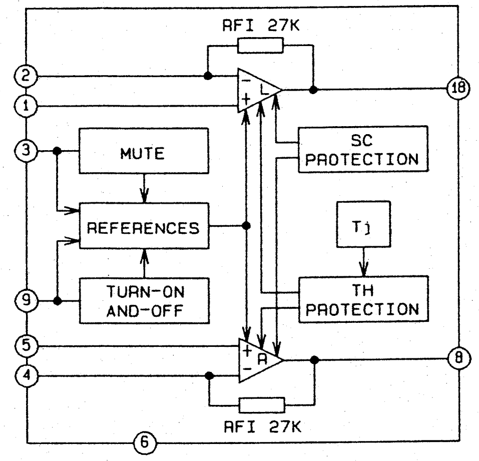

IC101 TDA4472-A
Offset Comp. (Optional)
Loop Filter
VCO
AFC Switch
FPLL
VCO + Phase Shift
AFC
VIF Amp
Video Det.
VIF
Video
IC351 TDA7263
RFI 27K


R3S18 1K
C3S21 .01μ
C3S22 47μ 16V
Q3S03 JA101
Q3S04 2SC2058
R3S24 1K
C3S12 .01μ
R3S16 470
CF3S3 5.5
R3S19 330
R3S22 330
Q3S05 2SC2058

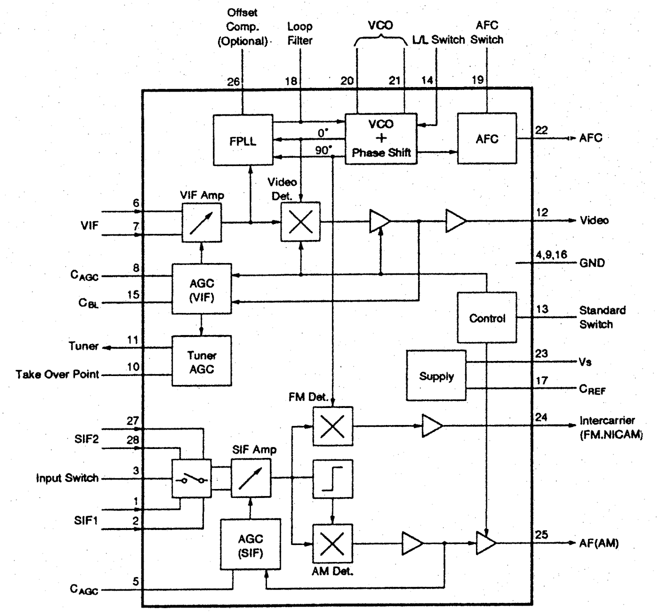

S1~S4
I2SL/R
I2SL/R
Demodulator
FM1
FM2
NICAM A
NICAM B
IDENT
IDENT
DFP
LOUD-SPEAKER L
LOUD-SPEAKER R
D/A
D/A
29 DACM L
28 DACM R
Loudspeaker
HEADPHONE L
HEADPHONE R
26 DACA L
25 DACA R
Headphone
A/D
A/D
SCART L
SCART R
SCART L
SCART R
37 SC1 OUT L
36 SC1 OUT R
SCART 1
34 SC2 OUT L
33 SC2 OUT R
SCART 2
SCART Switching Facilities


26 18 20 21 19
FPLL
0°
90°
VCO + Phase Shift
AFC
22 AFC
VIF
6 7
VIF Amp
Video Det.
12 Video
4,9,16
CAGC 8
AGC (VIF)
Supply
23 Vs
17 CREF
Tuner 11
Take Over Point 10
Tuner AGC
FM Det.
24 Intercarrier (FM,NICAM)
SIF2 27 28
Input Switch 3
SIF Amp
SIF1 1 2
AGC (SIF)
CAGC 5

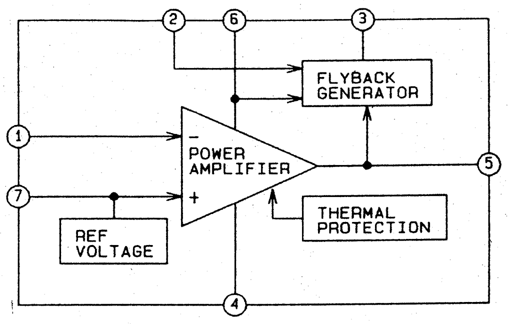
IC351 TDA7263


RFI 27K
2
1
3
18
MUTE
SC PROTECTION
REFERENCES
Tj
TURN-ON AND-OFF
TH PROTECTION
9
5
4
8
RFI 27K
6

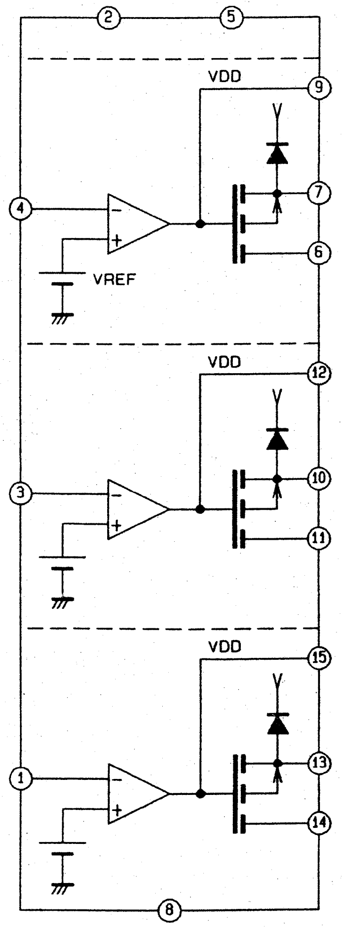
IC101 TDA4470-B


Offset Comp. (Optional)
Loop Filter
VCO
L/L Switch
AFC Switch
26 18 20 21 14 19
FPLL
0°
90°
VCO + Phase Shift
AFC
22 AFC
VIF
6 7
VIF Amp
Video Det.
12 Video
4,9,16 GND
CAGC 8
CBL 15
AGC (VIF)
Control
13 Standard Switch
Tuner 11
Take Over Point 10
Tuner AGC
Supply
23 Vs
17 CREF
FM Det.
24 Intercarrier (FM,NICAM)
SIF2 27 28
Input Switch 3
SIF Amp
SIF1 1 2
AGC (SIF)
AM Det.
25 AF(AM)
CAGC 5

IC401 TDA8171

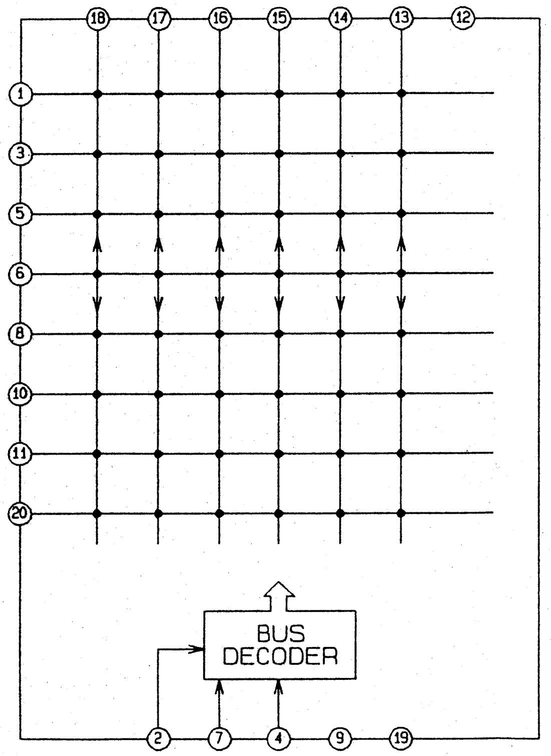

2 6 3
FLYBACK GENERATOR
1
POWER AMPLIFIER
5
7
REF VOLTAGE
THERMAL PROTECTION
4

IC660 TEA5101

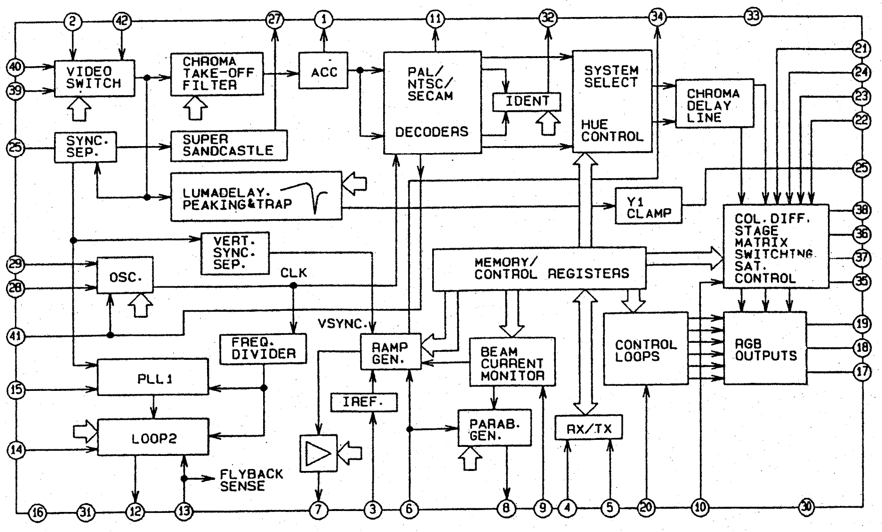

2 5
VDD
9
4
7
6
VREF
VDD
12
3
10
11
VDD
15
1
13
14
8

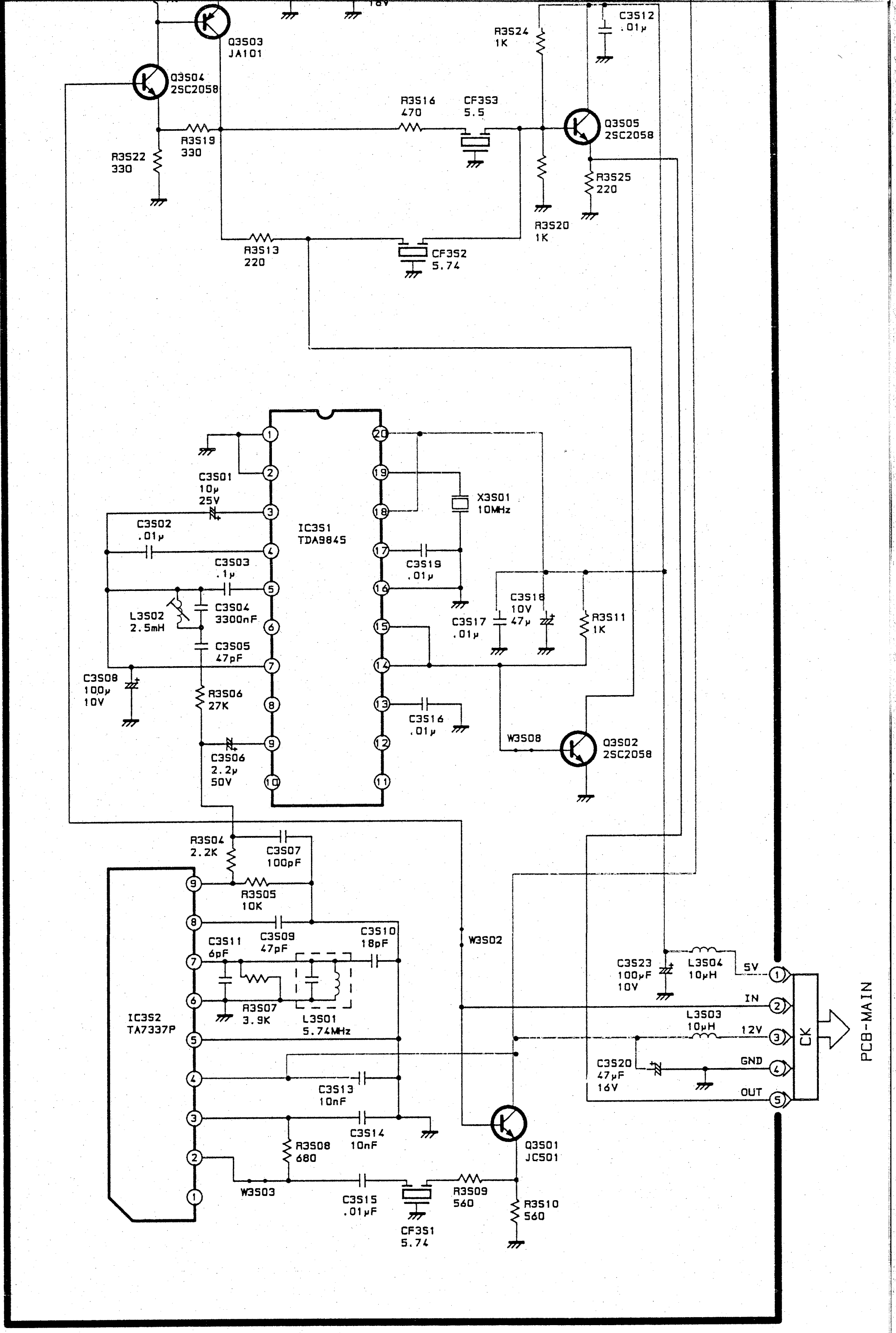
JT

IC202 TEA6415C


18 17 16 15 14 13 12
1
3
5
6
8
10
11
20
BUS DECODER
2 7 4 9 19

IC201 MC44031

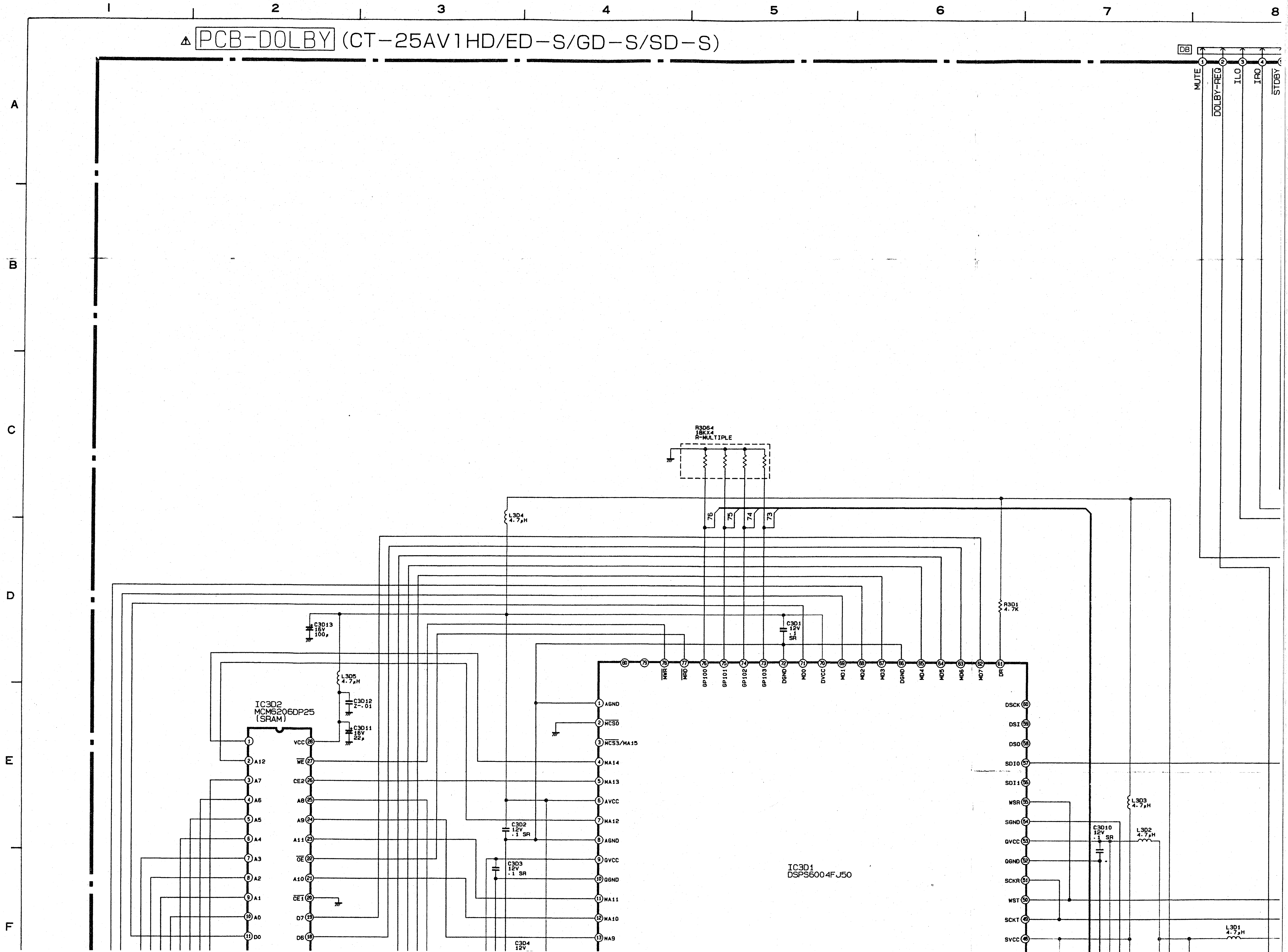

2 42 27 1 11 32 34 33
40
39
VIDEO SWITCH
CHROMA TAKE-OFF FILTER
ACC
PAL/NTSC/SECAM DECODERS
IDENT
SYSTEM SELECT
HUE CONTROL
CHROMA DELAY LINE
21 24 23 22
25
SYNC. SEP.
SUPER SANDCASTLE
LUMADELAY, PEAKING&TRAP
Y1 CLAMP
38
COL. DIFF. STAGE MATRIX SWITCHING SAT. CONTROL
36 37 35
29
26
OSC.
VERT. SYNC. SEP.
CLK
MEMORY/ CONTROL REGISTERS
VSYNC.
41
FREQ. DIVIDER
RAMP GEN.
BEAM CURRENT MONITOR
CONTROL LOOPS
RGB OUTPUTS
19 18 17
15
PLL1
IREF.
14
LOOP2
PARAB. GEN.
RX/TX
FLYBACK SENSE
16 31 12 13 7 3 6 8 9 4 5 20 10 30

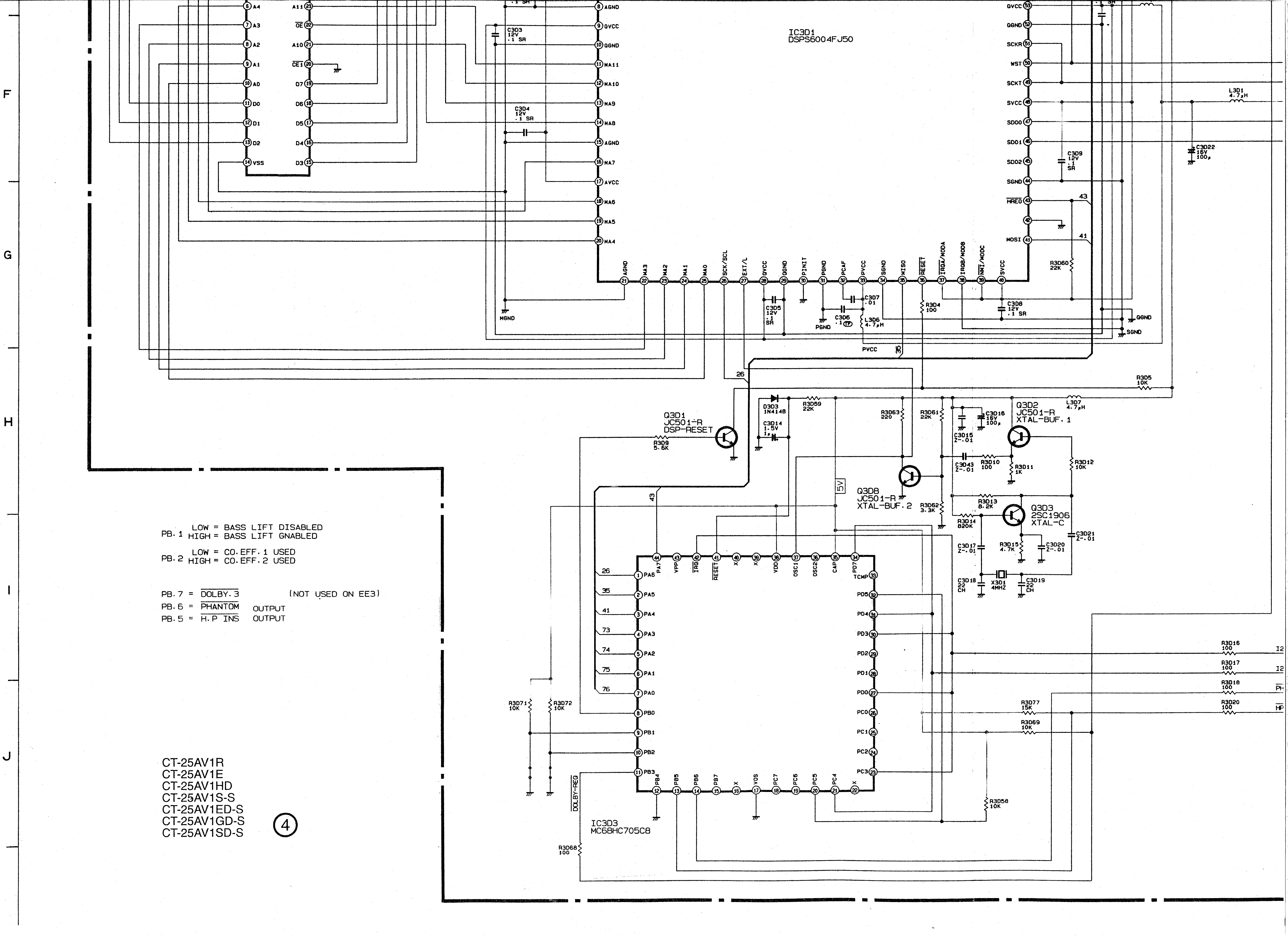

Q3S03 JA101
Q3S04 2SC2058
R3S24 1K
C3S12 .01μ
R3S16 470
CF3S3 5.5
Q3S05 2SC2058
R3S22 330
R3S19 330
R3S25 220
R3S20 1K
R3S13 220
CF3S2 5.74
C3S01 10μ 25V
C3S02 .01μ
C3S03 .1μ
L3S02 2.5mH
C3S04 3300nF
C3S05 47pF
C3S08 100μ 10V
R3S06 27K
C3S06 2.2μ 50V
IC3S1 TDA9845
X3S01 10MHz
C3S19 .01μ
C3S18 10V 47μ
C3S17 .01μ
R3S11 1K
C3S16 .01μ
W3S08
Q3S02 2SC2058
R3S04 2.2K
C3S07 100pF
R3S05 10K
C3S11 6pF
C3S09 47pF
C3S10 18pF
R3S07 3.9K
L3S01 5.74MHz
IC3S2 TA7337P
C3S13 10nF
C3S14 10nF
R3S08 680
W3S03
C3S15 .01μF
CF3S1 5.74
R3S09 560
R3S10 560
Q3S01 JC501
W3S02
C3S23 100μF 10V
L3S04 10μH
5V
IN
L3S03 10μH
12V
C3S20 47μF 16V
GND
OUT
CK
PCB-MAIN

⚠ PCB-IDENT
(25AV1GD-S only)

CT-25AV1R
CT-25AV1E
CT-25AV1HD
CT-25AV1S-S
CT-25AV1ED-S
CT-25AV1GD-S
CT-25AV1SD-S

⚠ PCB-DOLBY (CT-25AV1HD/ED-S/GD-S/SD-S)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
DB
MUTE
DOLBY-REQ
ILO
IRQ
STDBY
R3D64
18KX4
R-MULTIPLE
L3D4
4.7µH
R3D1
4.7K
C3D13
16V
100µ
C3D1
12V
.1
SR
L3D5
4.7µH
C3D12
Z-.01
C3D11
16V
22µ
IC3D2
MCM6206DP25
(SRAM)
A12
A7
A6
A5
A4
A3
A2
A1
A0
D0
VCC
WE
CE2
A8
A9
A11
OE
A10
CE1
D7
D6
C3D2
12V
.1 SR
C3D3
12V
.1 SR
C3D4
12V
AGND
NCS0
NCS3/MA15
MA14
MA13
AVCC
MA12
AGND
QVCC
QGND
MA11
MA10
MA9
NWR
NRD
GP100
GP101
GP102
GP103
DGND
MD0
DVCC
MD1
MD2
MD3
DGND
MD4
MD5
MD6
MD7
DR
DSCK
DSI
DSO
SDIO
SDI1
WSR
SGND
QVCC
QGND
SCKR
WST
SCKT
SVCC
IC3D1
DSPS6004FJ50
L3D3
4.7µH
C3D10
12V
.1 SR
L3D2
4.7µH
L3D1
4.7µH


F
G
H
I
J
IC3D1
DSPS6004FJ50
IC3D3
MC68HC705C8
Q3D1
JC501-R
DSP-RESET
Q3D2
JC501-R
XTAL-BUF. 1
Q3D8
JC501-R
XTAL-BUF. 2
Q3D3
2SC1906
XTAL-C
D3D3
1N4148
X3D1
4MHZ
L3D1
4.7μH
L3D6
4.7μH
L3D7
4.7μH
C3D3
12V
.1 SR
C3D4
12V
.1 SR
C3D5
12V
.1
SR
C3D6
.1
C3D7
.01
C3D8
12V
.1 SR
C3D9
12V
.1
SR
C3D14
1.5V
1μ
C3D15
Z-.01
C3D16
16V
100μ
C3D17
Z-.01
C3D18
22
CH
C3D19
22
CH
C3D20
Z-.01
C3D21
Z-.01
C3D22
16V
100μ
C3D43
Z-.01
R3D4
100
R3D5
10K
R3D9
5.6K
R3D10
100
R3D11
1K
R3D12
10K
R3D13
8.2K
R3D14
820K
R3D15
4.7K
R3D16
100
R3D17
100
R3D18
100
R3D20
100
R3D58
10K
R3D59
22K
R3D60
22K
R3D61
22K
R3D62
3.3K
R3D63
220
R3D68
100
R3D69
10K
R3D71
10K
R3D72
10K
R3D77
15K
AGND
QVCC
QGND
MA11
MA10
MA9
MA8
MA7
AVCC
MA6
MA5
MA4
MA3
MA2
MA1
MA0
SCK/SCL
EXT/L
PINIT
PGND
PCAF
PVCC
SGND
MISO
RESET
IRQA/MODA
IRQB/MODB
NMI/MODC
SVCC
MOSI
HREQ
SDO0
SDO1
SDO2
SCKT
WST
SCKR
MGND
PVCC
QGND
SGND
A4
A3
A2
A1
A0
D0
D1
D2
VSS
A11
OE
A10
CEI
D7
D6
D5
D4
D3
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
VPP
IRQ
RESET
VDD
OSC1
OSC2
CAP
PD7
TCMP
PD5
PD4
PD3
PD2
PD1
PD0
PC0
PC1
PC2
PC3
PC4
PC5
PC6
PC7
VOS
DOLBY-REG
5V
26
35
41
43
73
74
75
76
I2
I2
PH
HP

PB.1 LOW = BASS LIFT DISABLED
HIGH = BASS LIFT GNABLED

PB.2 LOW = CO.EFF.1 USED
HIGH = CO.EFF.2 USED

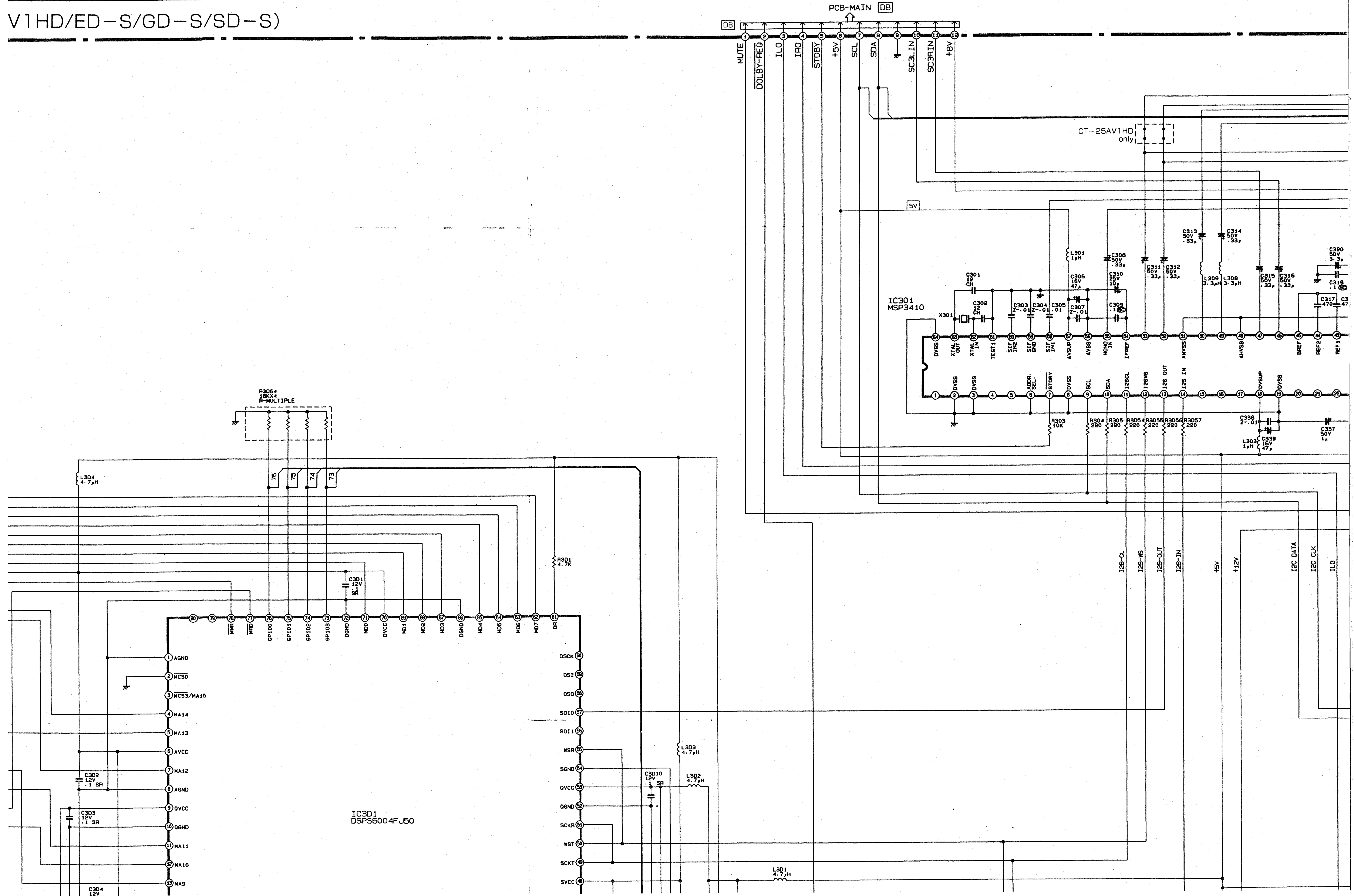
PB.7 = DOLBY.3 (NOT USED ON EE3)
PB.6 = PHANTOM OUTPUT
PB.5 = H.P INS OUTPUT

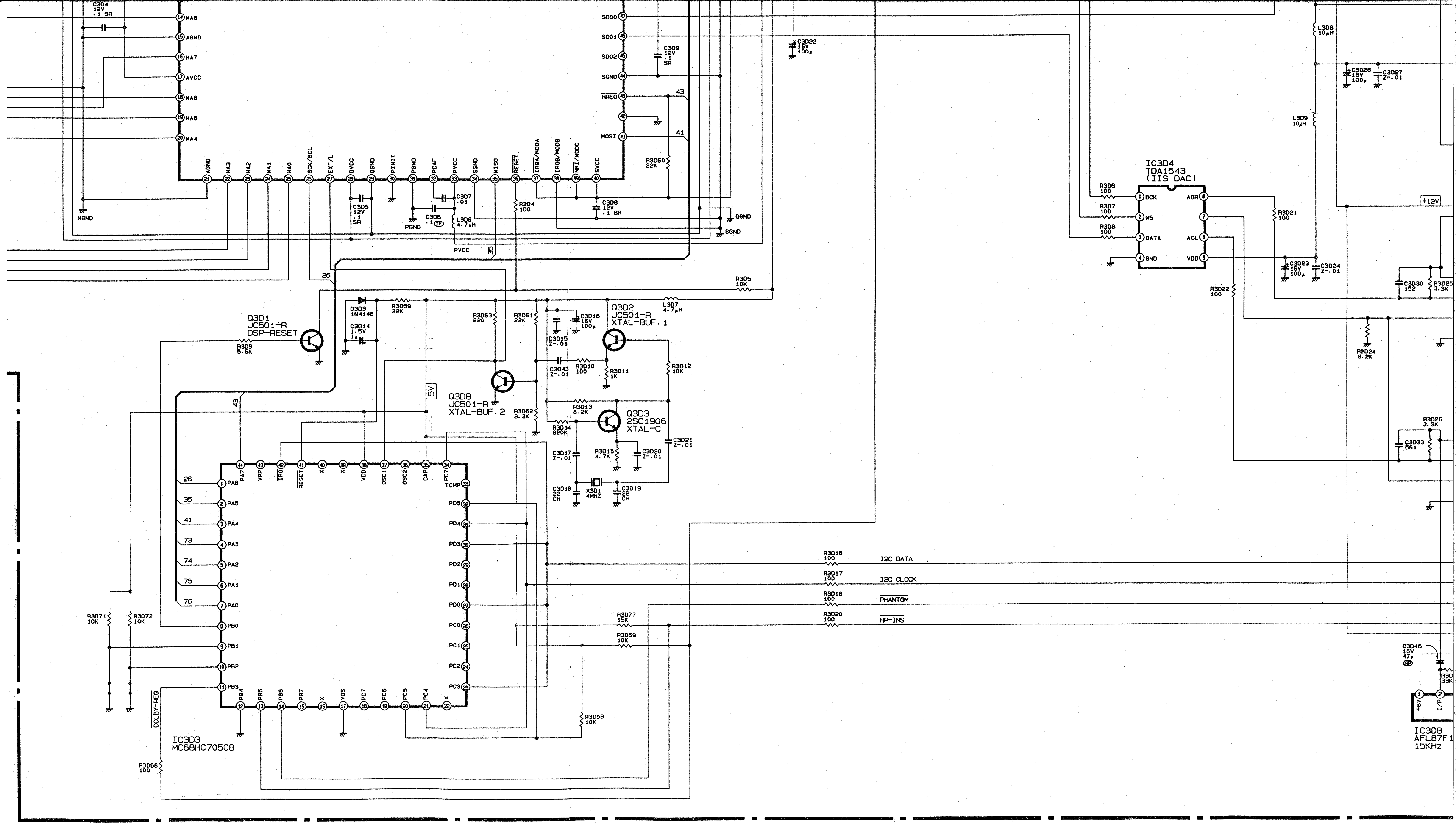
CT-25AV1R
CT-25AV1E
CT-25AV1HD
CT-25AV1S-S
CT-25AV1ED-S
CT-25AV1GD-S
CT-25AV1SD-S

④

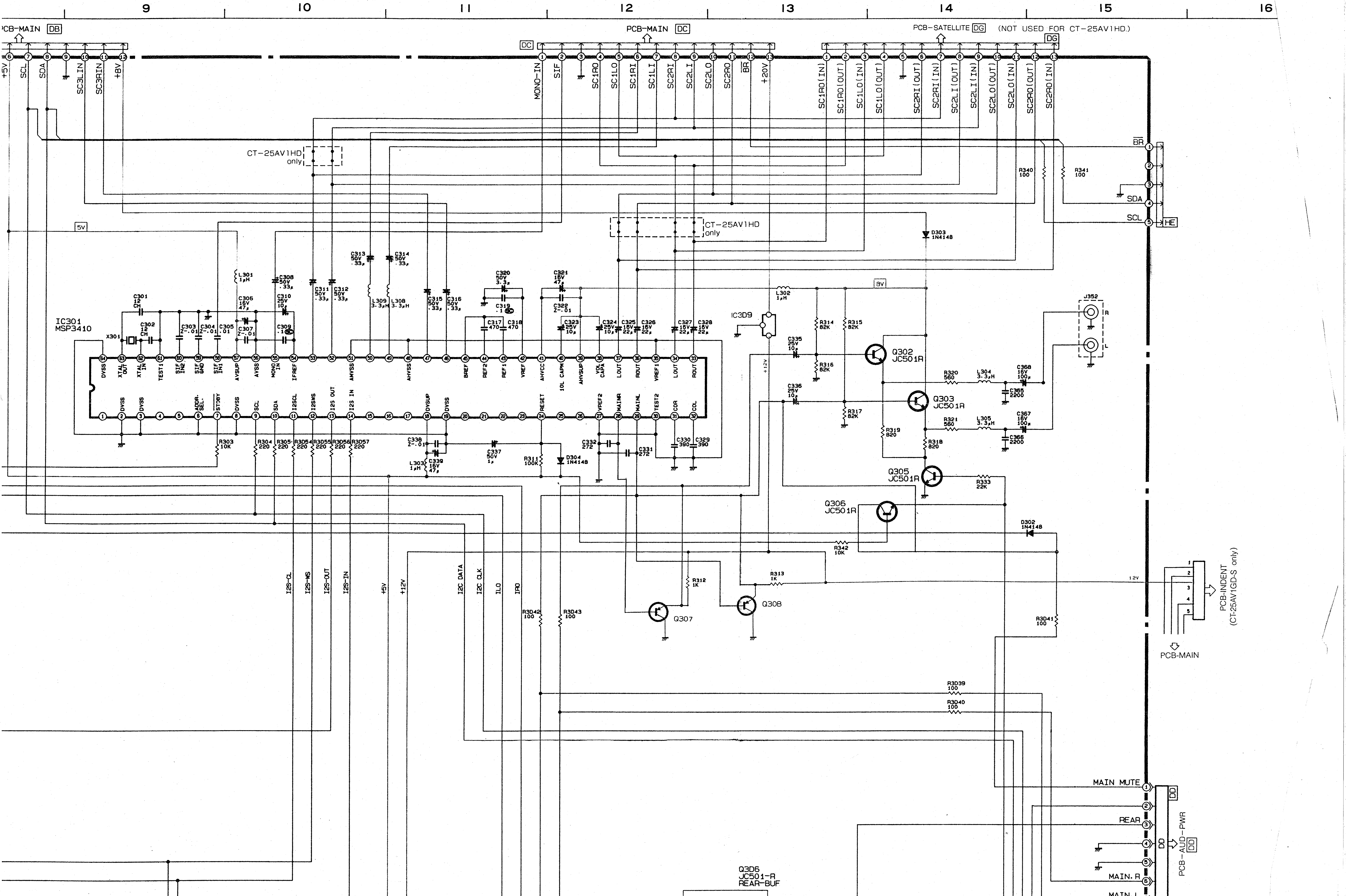
3 4 5 6 7 8 9 10 11

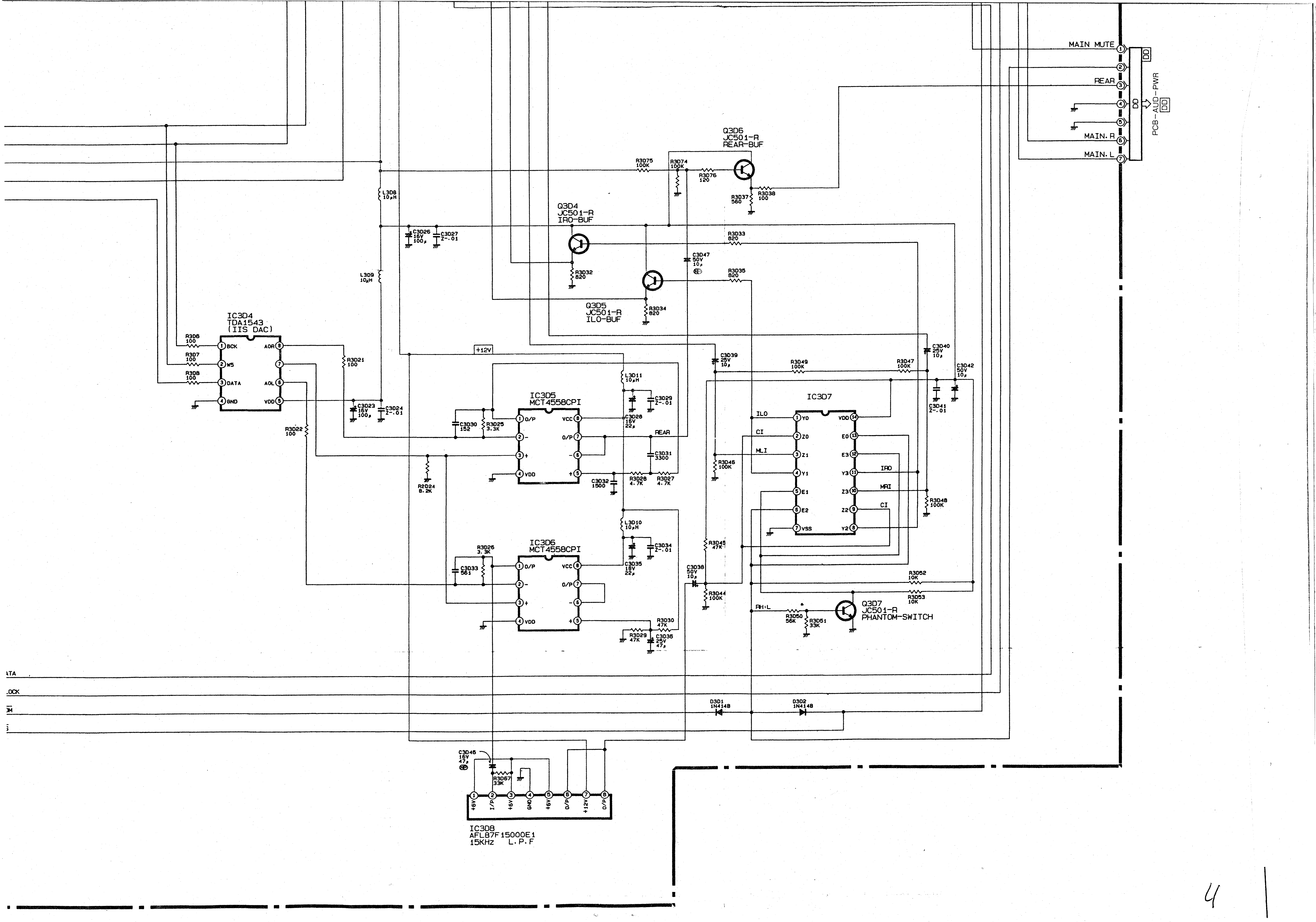
V1HD/ED-S/GD-S/SD-S)


PCB-MAIN DB
DB
MUTE
DOLBY-REG
ILO
IRO
STDBY
+5V
SCL
SDA
SC3LIN
SC3RIN
+8V
CT-25AV1HD only
5V
IC301
MSP3410
X301
C301 12 CH
C302 12 CH
C303 Z-.01
C304 Z-.01
C305 .01
C306 16V 47μ
C307 Z-.01
C308 50V .33μ
C309 .1
C310 25V 10μ
C311 50V .33μ
C312 50V .33μ
C313 50V .33μ
C314 50V .33μ
C315 50V .33μ
C316 50V .33μ
C317 470
C319 .1
C320 50V 3.3μ
L301 1μH
L308 3.3μH
L309 3.3μH
DVSS
XTAL OUT
XTAL IN
TEST1
SIF IN2
SIF GND
SIF IN1
AVSUP
AVSS
MONO IN
IFREF
AHVSS
BREF
REF2
REF1
ADDR. SEL.
STDBY
SCL
SDA
I2SCL
I2SWS
I2S OUT
I2S IN
DVSUP
R303 10K
R304 220
R305 220
R3054 220
R3055 220
R3056 220
R3057 220
C338 Z-.01
C339 16V 47μ
L303 1μH
C337 50V 1μ
I2S-CL
I2S-WS
I2S-OUT
I2S-IN
+5V
+12V
I2C DATA
I2C CLK
ILO
R3D64 18KX4 R-MULTIPLE
76
75
74
73
L3D4 4.7μH
R3D1 4.7K
C3D1 12V .1 SR
MWR
MRD
GP100
GP101
GP102
GP103
DGND
MD0
DVCC
MD1
MD2
MD3
DGND
MD4
MD5
MD6
MD7
DR
AGND
NCS0
NCS3/MA15
MA14
MA13
AVCC
MA12
AGND
QVCC
QGND
MA11
MA10
MA9
DSCK
DSI
DSO
SDI0
SDI1
WSR
SGND
QVCC
GGND
SCKR
WST
SCKT
SVCC
C3D2 12V .1 SR
C3D3 12V .1 SR
C3D4 12V
IC3D1
DSPS6004FJ50
L3D3 4.7μH
C3D10 12V .1 SR
L3D2 4.7μH
L3D1 4.7μH

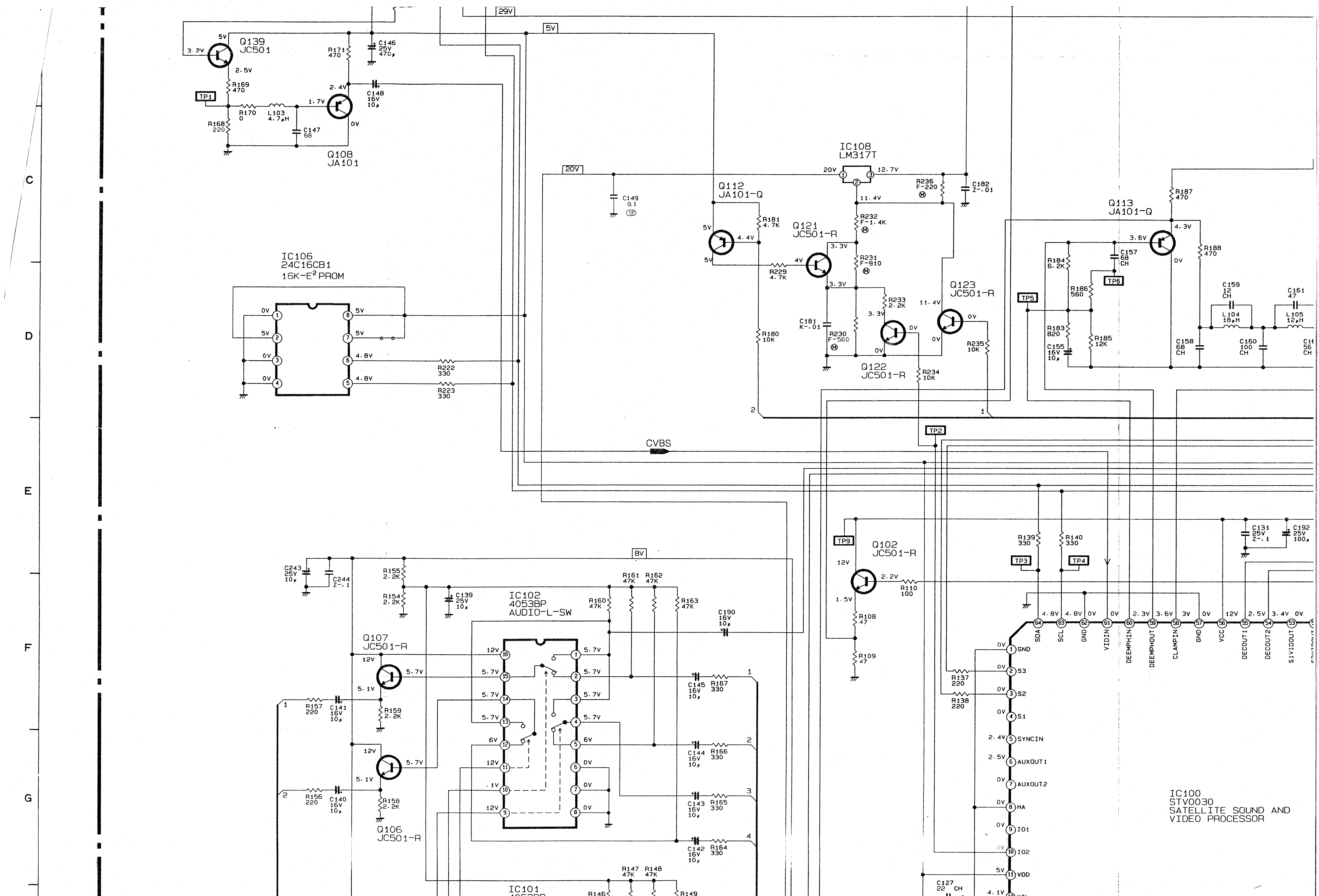


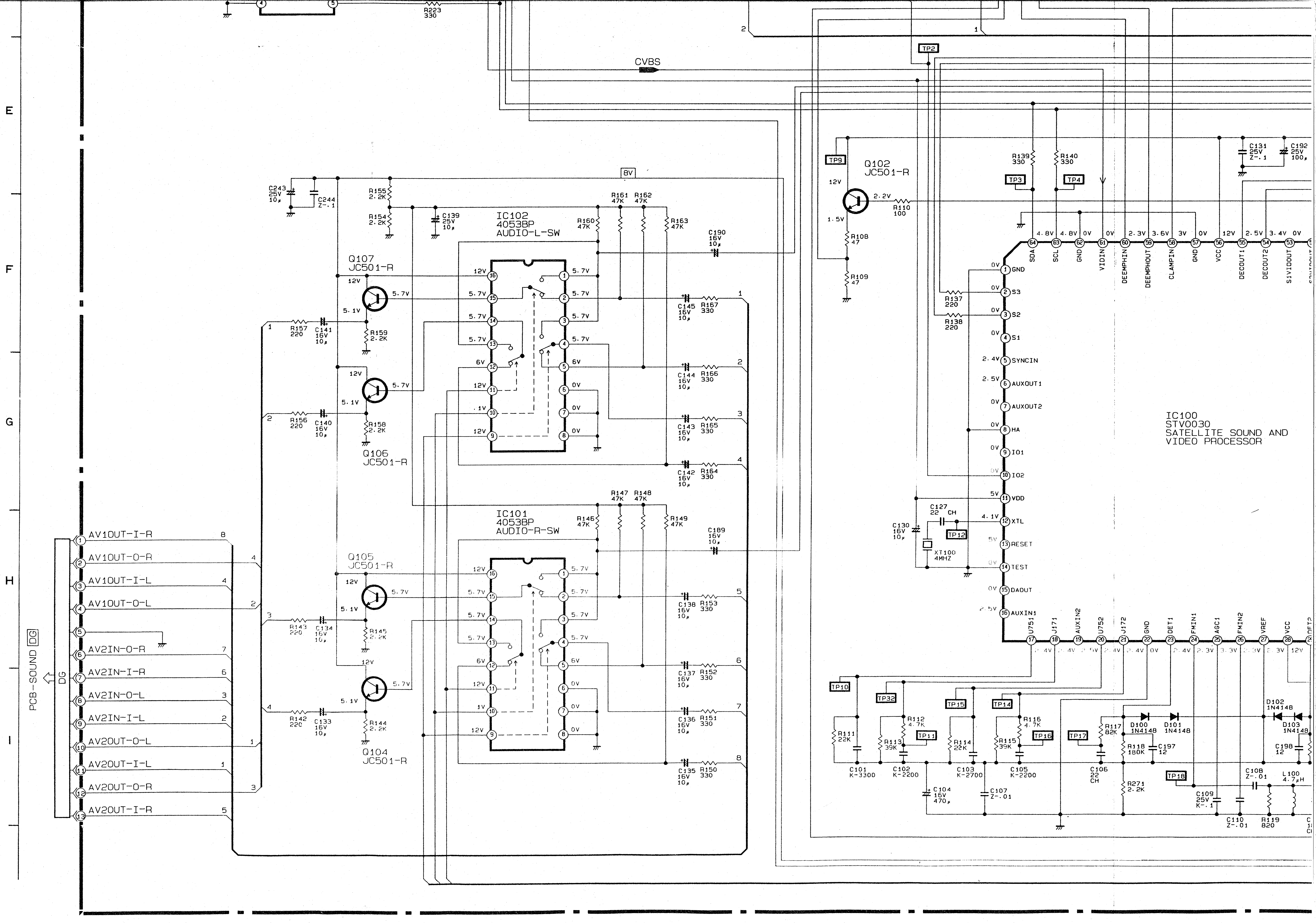
C3D4 12V .1 SR
MA8
MAGND
MA7
AVCC
MA6
MA5
MA4
MGND
AGND
MA3
MA2
MA1
MA0
SCK/SCL
EXT/L
DVCC
DGND
PINIT
PGND
PCAF
PVCC
SGND
MISO
RESET
IRQA/MODA
IRQB/MODB
NMI/MODC
SVCC
SDO0
SDO1
SDO2
SGND
HREQ
MOSI
C3D5 12V .1 SR
C3D6 .1
C3D7 .01
L3D6 4.7μH
R3D4 100
C3D8 12V .1 SR
C3D9 12V .1 SR
C3D22 16V 100μ
R3D60 22K
QGND
SGND
PVCC
43
41
26
R3D5 10K
Q3D1 JC501-R DSP-RESET
R3D9 5.6K
D3D3 1N4148
R3D59 22K
C3D14 1.5V 1μ
R3D63 220
R3D61 22K
C3D16 16V 100μ
C3D15 Z-.01
Q3D2 JC501-R XTAL-BUF.1
L3D7 4.7μH
C3D43 Z-.01
R3D10 100
R3D11 1K
R3D12 10K
Q3D8 JC501-R XTAL-BUF.2
5V
R3D62 3.3K
R3D13 8.2K
R3D14 820K
Q3D3 2SC1906 XTAL-C
C3D21 Z-.01
C3D17 Z-.01
R3D15 4.7K
C3D20 Z-.01
C3D18 22 CH
X3D1 4MHZ
C3D19 22 CH
PA7
VPP
IRQ
RESET
VDD
OSC1
OSC2
CAP
PD7
TCMP
PA6
PA5
PA4
PA3
PA2
PA1
PA0
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
VDS
PC7
PC6
PC5
PC4
PD5
PD4
PD3
PD2
PD1
PD0
PC0
PC1
PC2
PC3
35
73
74
75
76
R3D71 10K
R3D72 10K
DOLBY-REG
R3D68 100
IC3D3 MC68HC705C8
R3D58 10K
R3D77 15K
R3D69 10K
R3D16 100
I2C DATA
R3D17 100
I2C CLOCK
R3D18 100
PHANTOM
R3D20 100
HP-INS
IC3D4 TDA1543 (IIS DAC)
R3D6 100
R3D7 100
R3D8 100
BCK
WS
DATA
GND
AOR
AOL
VDD
R3D21 100
R3D22 100
C3D23 16V 100μ
C3D24 Z-.01
L3D8 10μH
L3D9 10μH
C3D26 16V 100μ
C3D27 Z-.01
+12V
C3D30 152
R3D25 3.3K
R2D24 8.2K
R3D26 3.3K
C3D33 561
C3D46 16V 47μ
R3D 33K
+6V
I/P
IC3D8 AFL87F1 15KHz


9
10
11
12
13
14
15
16
PCB-MAIN DB
+5V
SCL
SDA
SC3LIN
SC3RIN
+8V
PCB-MAIN DC
DC
MONO-IN
SIF
SC1RO
SC1LO
SC1RI
SC1LI
SC2RI
SC2LI
SC2LO
SC2RO
BR
+20V
PCB-SATELLITE DG
(NOT USED FOR CT-25AV1HD.)
DG
SC1RO(IN)
SC1RO(OUT)
SC1LO(IN)
SC1LO(OUT)
SC2RI(OUT)
SC2RI(IN)
SC2LI(OUT)
SC2LI(IN)
SC2LO(OUT)
SC2LO(IN)
SC2RO(OUT)
SC2RO(IN)
CT-25AV1HD only
CT-25AV1HD only
5V
8V
BR
SDA
SCL
HE
R340 100
R341 100
D303 1N4148
IC301
MSP3410
X301
C301 12 CH
C302 12 CH
C303 Z-.01
C304 Z-.01
C305 .01
C306 16V 47μ
C307 Z-.01
C308 50V .33μ
C309 .1
C310 25V 10μ
L301 1μH
C311 50V .33μ
C312 50V .33μ
C313 50V .33μ
C314 50V .33μ
L309 3.3μH
L308 3.3μH
C315 50V .33μ
C316 50V .33μ
C317 470
C318 470
C319 .1
C320 50V 3.3μ
C321 16V 47μ
C322 Z-.01
C323 25V 10μ
C324 25V 10μ
C325 16V 22μ
C326 16V 22μ
C327 16V 22μ
C328 16V 22μ
IC3D9
L302 1μH
R314 82K
R315 82K
R316 82K
R317 82K
C335 25V 10μ
C336 25V 10μ
Q302 JC501R
Q303 JC501R
Q305 JC501R
Q306 JC501R
R319 820
R318 820
R320 560
R321 560
L304 3.3μH
L305 3.3μH
C365 2200
C366 2200
C368 16V 100μ
C367 16V 100μ
J352
R
L
R333 22K
D302 1N4148
R342 10K
+12V
DVSS
XTAL OUT
XTAL IN
TEST1
SIF IN2
SIF GND
SIF IN1
AVSUP
AVSS
MONO IN
IFREF
AHVSS
BREF
REF2
REF1
VREF
AHVCC
10L CAPM
AHVSUP
VOL CAPA
LOUT
ROUT
VREF1
ADDR. SEL.
STDBY
SCL
SDA
I2SCL
I2SWS
I2S OUT
I2S IN
DVSUP
RESET
VREF2
MAINR
MAINL
TEST2
COR
COL
R303 10K
R304 220
R305 220
R3D54 220
R3D55 220
R3D56 220
R3D57 220
C338 Z-.01
C339 16V 47μ
L303 1μH
C337 50V 1μ
R311 100K
D304 1N4148
C332 272
C331 272
C330 390
C329 390
I2S-CL
I2S-WS
I2S-OUT
I2S-IN
+5V
+12V
I2C DATA
I2C CLK
ILO
IRO
R3D42 100
R3D43 100
R312 1K
R313 1K
Q307
Q308
12V
PCB-INDENT (CT-25AV1GD-S only)
PCB-MAIN
R3D41 100
R3D39 100
R3D40 100
MAIN MUTE
REAR
MAIN. R
MAIN. L
DD
PCB-AUD-PWR DD
Q3D6 JC501-R REAR-BUF

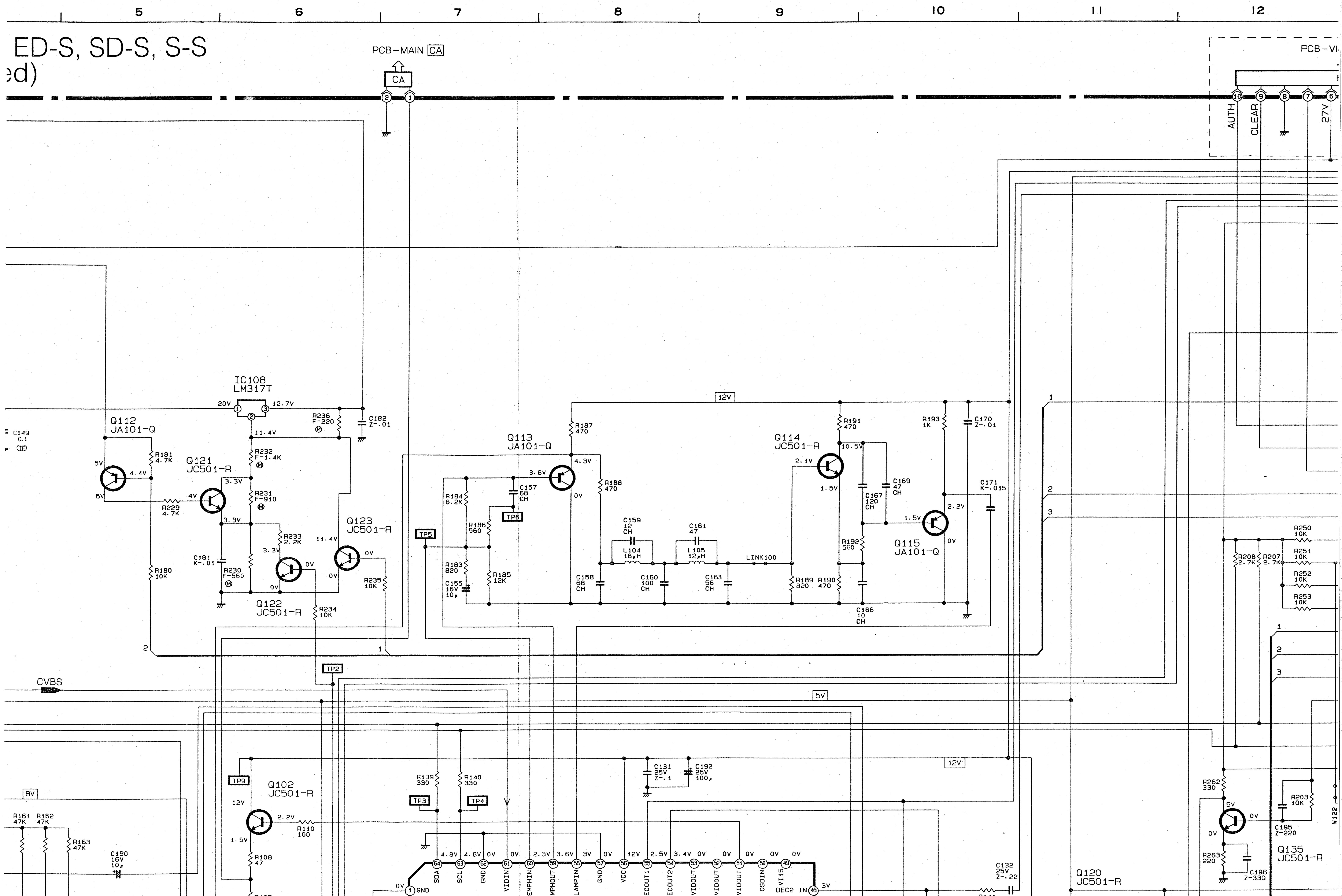

MAIN MUTE
REAR
MAIN. R
MAIN. L
DD
PCB-AUD-PWR
Q3D6
JC501-R
REAR-BUF
R3D75 100K
R3D74 100K
R3D76 120
R3D37 560
R3D38 100
Q3D4
JC501-R
IRO-BUF
L3D8 10µH
C3D26 16V 100µ
C3D27 Z-.01
R3D33 820
C3D47 50V 10µ
R3D32 820
R3D35 820
L3D9 10µH
Q3D5
JC501-R
ILO-BUF
R3D34 820
IC3D4
TDA1543
(IIS DAC)
R3D6 100
R3D7 100
R3D8 100
BCK
WS
DATA
GND
AOR
AOL
VDD
R3D21 100
C3D23 16V 100µ
C3D24 Z-.01
R3D22 100
+12V
IC3D5
MCT4558CPI
O/P
VCC
L3D11 10µH
C3D29 Z-.01
C3D28 16V 22µ
REAR
C3D30 152
R3D25 3.3K
C3D31 3300
C3D32 1500
R3D28 4.7K
R3D27 4.7K
R2D24 8.2K
C3D39 25V 10µ
C3D40 25V 10µ
R3D49 100K
R3D47 100K
C3D42 50V 10µ
C3D41 Z-.01
IC3D7
ILO
CI
MLI
Y0
Z0
Z1
Y1
E1
E2
VSS
VDD
E0
E3
Y3
Z3
Z2
Y2
IRO
MRI
CI
R3D46 100K
R3D48 100K
IC3D6
MCT4558CPI
R3D26 3.3K
C3D33 561
L3D10 10µH
C3D34 Z-.01
C3D35 16V 22µ
R3D30 47K
R3D29 47K
C3D36 25V 47µ
R3D45 47K
C3D38 50V 10µ
R3D44 100K
R3D52 10K
R3D53 10K
RH·L
R3D50 56K
R3D51 33K
Q3D7
JC501-R
PHANTOM-SWITCH
ATA
LOCK
M
D3D1 1N4148
D3D2 1N4148
C3D45 16V 47µ
R3D67 33K
+6V
I/P
+6V
GND
+6V
O/P
+12V
O/P
IC3D8
AFL87F15000E1
15KHz L.P.F

4

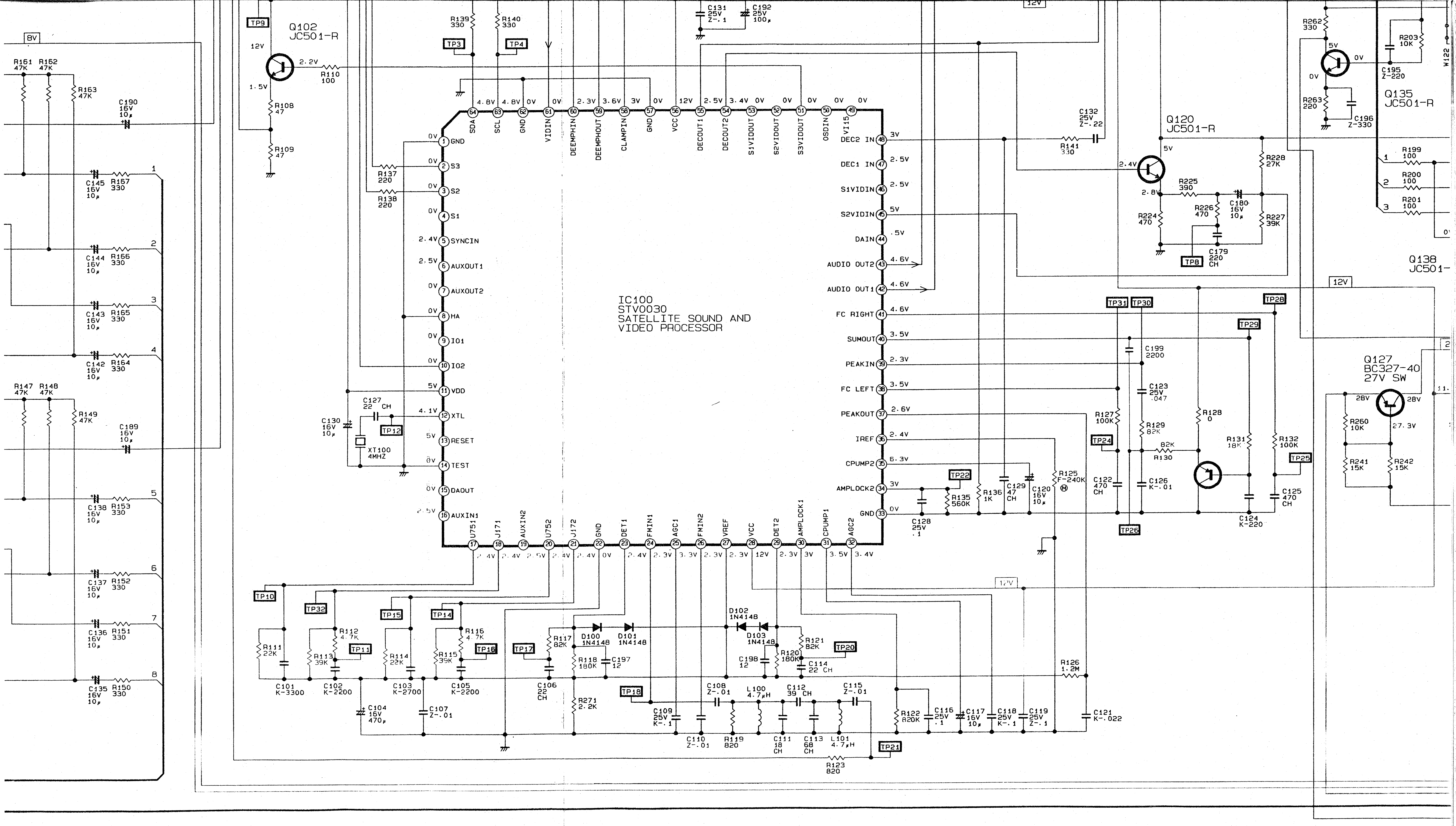

C
D
E
F
G
29V
5V
20V
8V
Q139
JC501
3.2V
2.5V
R169
470
TP1
R170
0
L103
4.7μH
C147
68
R168
220
R171
470
C146
25V
470μ
C148
16V
10μ
2.4V
1.7V
0V
Q108
JA101
IC106
24C16CB1
16K-E²PROM
4.8V
R222
330
R223
330
C149
0.1
IC108
LM317T
12.7V
R236
F-220
C182
Z-.01
11.4V
Q112
JA101-Q
4.4V
R181
4.7K
Q121
JC501-R
R232
F-1.4K
3.3V
R231
F-910
R229
4.7K
4V
R233
2.2K
C181
K-.01
R230
F-560
Q122
JC501-R
Q123
JC501-R
R235
10K
R234
10K
R180
10K
TP2
CVBS
Q113
JA101-Q
R187
470
4.3V
3.6V
C157
68
CH
TP6
R184
6.2K
R186
560
TP5
R183
820
C155
16V
10μ
R185
12K
R188
470
C158
68
CH
C159
12
CH
L104
18μH
C160
100
CH
C161
47
L105
12μH
TP9
Q102
JC501-R
12V
2.2V
R110
100
1.5V
R108
47
R109
47
R139
330
R140
330
TP3
TP4
C131
25V
Z-.1
C192
25V
100μ
C243
25V
10μ
C244
Z-.1
R155
2.2K
R154
2.2K
C139
25V
10μ
IC102
4053BP
AUDIO-L-SW
R160
47K
R161
47K
R162
47K
R163
47K
C190
16V
10μ
Q107
JC501-R
5.7V
5.1V
R157
220
C141
16V
10μ
R159
2.2K
6V
.1V
C145
16V
10μ
R167
330
C144
16V
10μ
R166
330
C143
16V
10μ
R165
330
C142
16V
10μ
R164
330
Q106
JC501-R
R156
220
C140
16V
10μ
R158
2.2K
R147
47K
R148
47K
R146
R149
IC101
R137
220
R138
220
C127
22
CH
1 GND
2 S3
3 S2
4 S1
5 SYNCIN
6 AUXOUT1
7 AUXOUT2
8 HA
9 IO1
10 IO2
11 VDD
2.4V
2.5V
5V
4.1V
64 SDA
63 SCL
62 GND
61 VIDIN
60 DEEMPHIN
59 DEEMPHOUT
58 CLAMPIN
57 GND
56 VCC
55 DECOUT1
54 DECOUT2
53 S1VIDOUT
2.3V
3V
IC100
STV0030
SATELLITE SOUND AND
VIDEO PROCESSOR

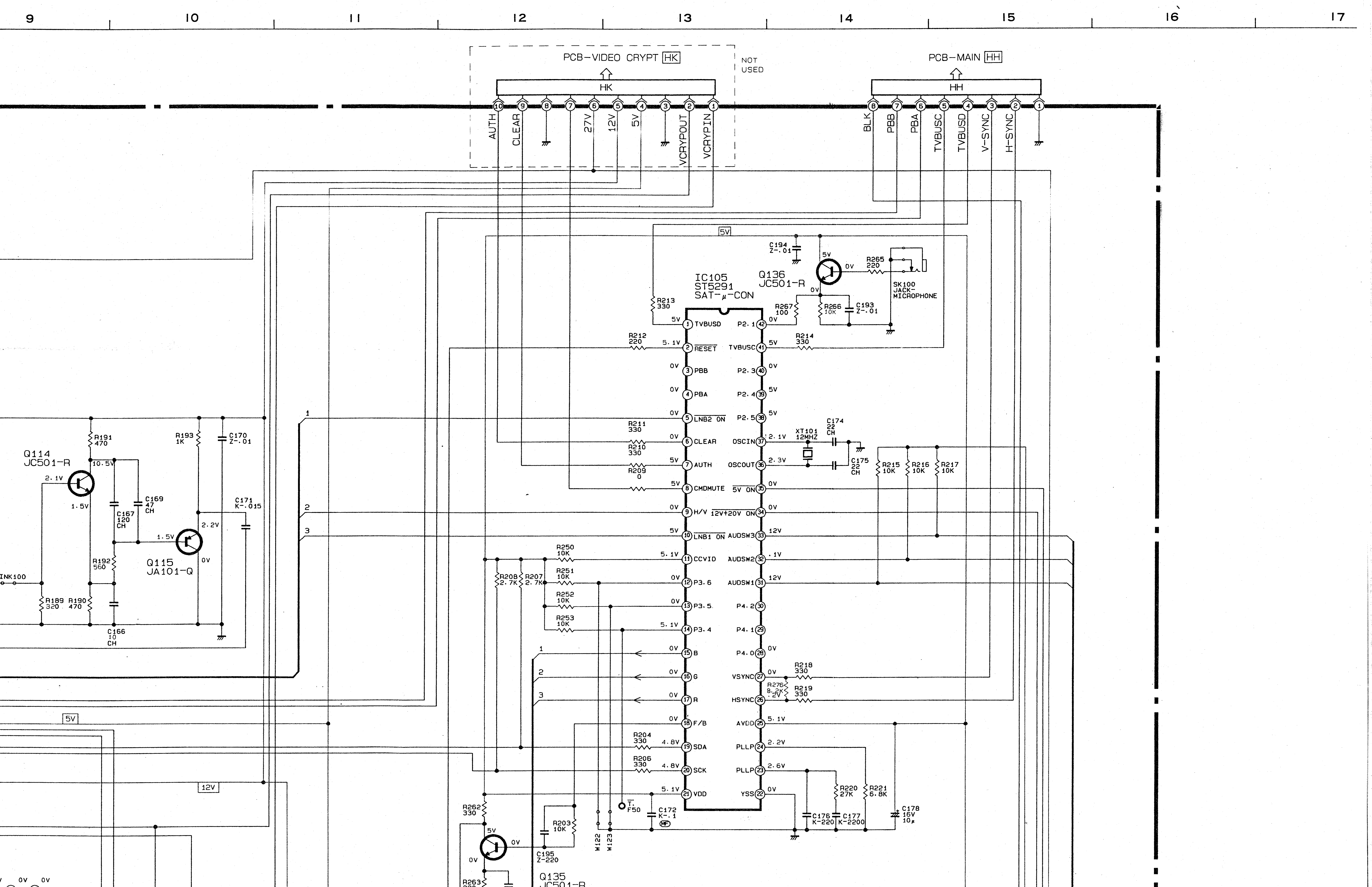

E
F
G
H
I
R223
330
CVBS
TP2
TP9
Q102
JC501-R
12V
2.2V
R110
100
1.5V
R108
47
R109
47
R139
330
R140
330
TP3
TP4
C131
25V
Z-.1
C192
25V
100μ
8V
C243
25V
10μ
C244
Z-.1
R155
2.2K
R154
2.2K
C139
25V
10μ
IC102
4053BP
AUDIO-L-SW
R160
47K
R161
47K
R162
47K
R163
47K
C190
16V
10μ
Q107
JC501-R
Q106
JC501-R
R157
220
C141
16V
10μ
R159
2.2K
R156
220
C140
16V
10μ
R158
2.2K
C145
16V
10μ
R167
330
C144
16V
10μ
R166
330
C143
16V
10μ
R165
330
C142
16V
10μ
R164
330
IC101
4053BP
AUDIO-R-SW
R146
47K
R147
47K
R148
47K
R149
47K
C189
16V
10μ
Q105
JC501-R
Q104
JC501-R
R143
220
C134
16V
10μ
R145
2.2K
R142
220
C133
16V
10μ
R144
2.2K
C138
16V
10μ
R153
330
C137
16V
10μ
R152
330
C136
16V
10μ
R151
330
C135
16V
10μ
R150
330
PCB-SOUND DG
DG
AV1OUT-I-R
AV1OUT-O-R
AV1OUT-I-L
AV1OUT-O-L
AV2IN-O-R
AV2IN-I-R
AV2IN-O-L
AV2IN-I-L
AV2OUT-O-L
AV2OUT-I-L
AV2OUT-O-R
AV2OUT-I-R
IC100
STV0030
SATELLITE SOUND AND
VIDEO PROCESSOR
SDA
SCL
GND
VIDIN
DEEMPHIN
DEEMPHOUT
CLAMPIN
GND
VCC
DECOUT1
DECOUT2
S1VIDOUT
GND
S3
S2
S1
SYNCIN
AUXOUT1
AUXOUT2
HA
IO1
IO2
VDD
XTL
RESET
TEST
DAOUT
AUXIN1
U751
J171
AUXIN2
U752
J172
GND
DET1
FMIN1
AGC1
FMIN2
VREF
VCC
R137
220
R138
220
C127
22 CH
TP12
C130
16V
10μ
XT100
4MHZ
TP10
TP32
TP15
TP14
TP11
TP16
TP17
TP18
R111
22K
R112
4.7K
R113
39K
R114
22K
R115
39K
R116
4.7K
R117
82K
R118
180K
R271
2.2K
C101
K-3300
C102
K-2200
C103
K-2700
C105
K-2200
C106
22
CH
C104
16V
470μ
C107
Z-.01
C197
12
D100
1N4148
D101
1N4148
D102
1N4148
D103
1N4148
C198
12
C108
Z-.01
L100
4.7μH
C109
25V
K-.1
C110
Z-.01
R119
820

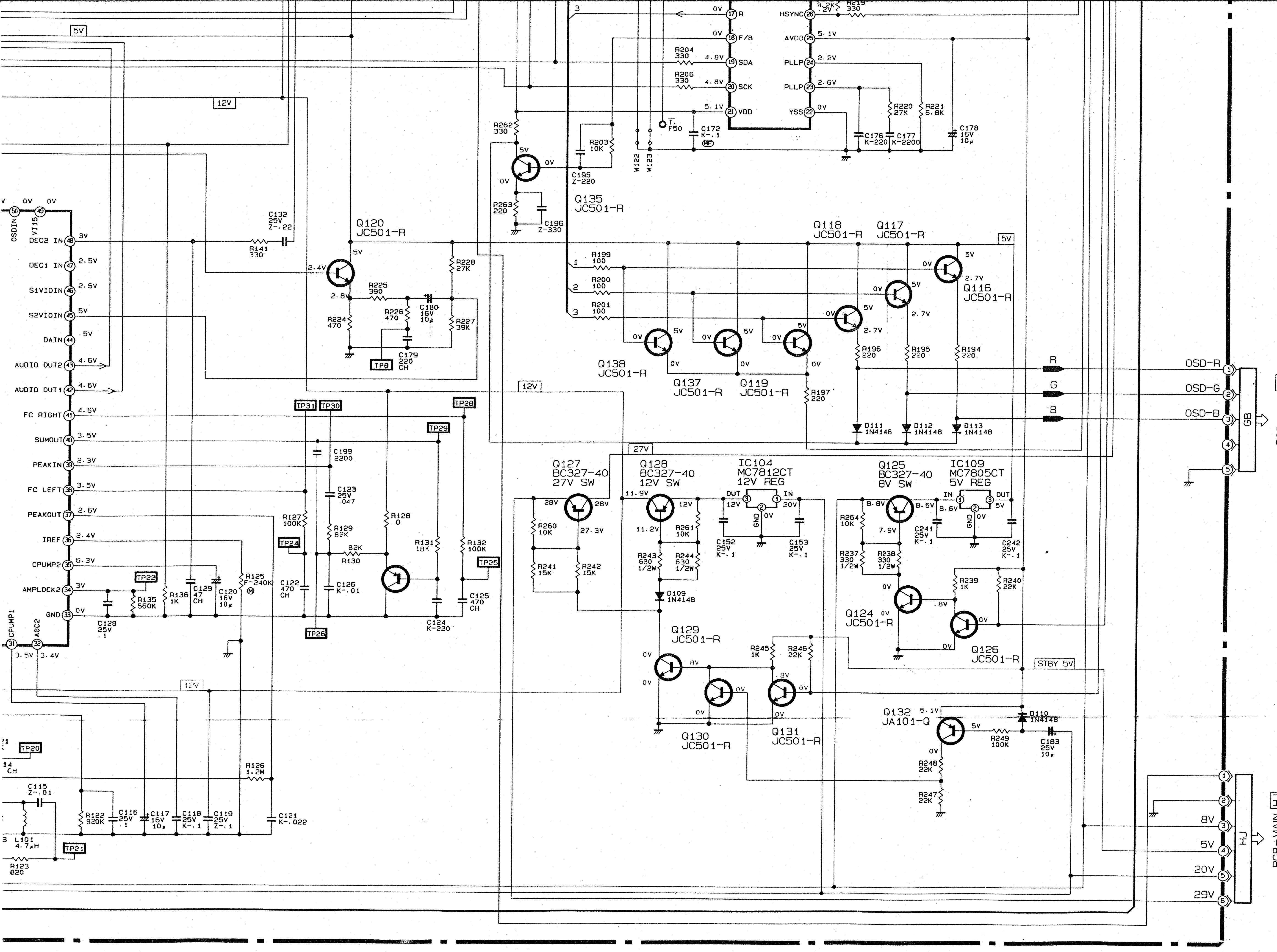
ED-S, SD-S, S-S
ed)



5
6
7
8
9
10
11
12
PCB-MAIN CA
CA
PCB-VI
AUTH
CLEAR
27V
IC108
LM317T
20V
12.7V
11.4V
R236 F-220
C182 Z-.01
C149 0.1
Q112 JA101-Q
5V
4.4V
R181 4.7K
Q121 JC501-R
3.3V
4V
R229 4.7K
R232 F-1.4K
R231 F-910
C181 K-.01
R230 F-560
R233 2.2K
Q122 JC501-R
Q123 JC501-R
R235 10K
R234 10K
R180 10K
Q113 JA101-Q
3.6V
4.3V
R187 470
R188 470
R184 6.2K
R186 560
C157 68 CH
TP6
TP5
R183 820
C155 16V 10μ
R185 12K
12V
C159 12 CH
L104 18μH
C161 47
L105 12μH
LINK100
C158 68 CH
C160 100 CH
C163 56 CH
R189 820
R190 470
Q114 JC501-R
2.1V
10.5V
1.5V
R191 470
C167 120 CH
C169 47 CH
R192 560
C166 10 CH
Q115 JA101-Q
R193 1K
C170 Z-.01
C171 K-.015
2.2V
R250 10K
R208 2.7K
R207 2.7K
R251 10K
R252 10K
R253 10K
TP2
CVBS
5V
TP9
Q102 JC501-R
2.2V
R110 100
R108 47
8V
R161 47K
R162 47K
R163 47K
C190 16V 10μ
R139 330
R140 330
TP3
TP4
C131 25V Z-.1
C192 25V 100μ
SDA
SCL
GND
VIDIN
EMPHIN
MPHOUT
LAMPIN
VCC
ECOUT1
ECOUT2
VIDOUT
OSDIN
VI15
DEC2 IN
C132 25V Z-.22
Q120 JC501-R
R262 330
R263 220
C195 Z-220
C196 Z-330
R203 10K
Q135 JC501-R
W122


IC100
STV0030
SATELLITE SOUND AND
VIDEO PROCESSOR
Q102
JC501-R
TP9
12V
2.2V
1.5V
R110
100
R108
47
R109
47
8V
R161
47K
R162
47K
R163
47K
C190
16V
10μ
C145
16V
10μ
R167
330
C144
16V
10μ
R166
330
C143
16V
10μ
R165
330
C142
16V
10μ
R164
330
R147
47K
R148
47K
R149
47K
C189
16V
10μ
C138
16V
10μ
R153
330
C137
16V
10μ
R152
330
C136
16V
10μ
R151
330
C135
16V
10μ
R150
330
1
2
3
4
5
6
7
8
R139
330
R140
330
TP3
TP4
C131
25V
Z-.1
C192
25V
100μ
12V
R137
220
R138
220
C127
22 CH
C130
16V
10μ
TP12
XT100
4MHZ
SDA
SCL
GND
VIDIN
DEEMPHIN
DEEMPHOUT
CLAMPIN
GND
VCC
DECOUT1
DECOUT2
S1VIDOUT
S2VIDOUT
S3VIDOUT
OSDIN
VI15
4.8V
4.8V
0V
0V
2.3V
3.6V
3V
0V
12V
2.5V
3.4V
0V
0V
0V
0V
0V
GND
S3
S2
S1
SYNCIN
AUXOUT1
AUXOUT2
HA
IO1
IO2
VDD
XTL
RESET
TEST
DAOUT
AUXIN1
0V
0V
0V
0V
2.4V
2.5V
0V
0V
0V
0V
5V
4.1V
5V
0V
0V
2.5V
DEC2 IN
DEC1 IN
S1VIDIN
S2VIDIN
DAIN
AUDIO OUT2
AUDIO OUT1
FC RIGHT
SUMOUT
PEAKIN
FC LEFT
PEAKOUT
IREF
CPUMP2
AMPLOCK2
GND
3V
2.5V
2.5V
5V
.5V
4.6V
4.6V
4.6V
3.5V
2.3V
3.5V
2.6V
2.4V
6.3V
3V
0V
U751
J171
AUXIN2
U752
J172
GND
DET1
FMIN1
AGC1
FMIN2
VREF
VCC
DET2
AMPLOCK1
CPUMP1
AGC2
2.4V
2.4V
2.5V
2.4V
2.4V
0V
2.4V
2.3V
3.3V
2.3V
2.3V
12V
2.3V
3V
3.5V
3.4V
C132
25V
Z-.22
R141
330
Q120
JC501-R
5V
2.4V
2.8V
R228
27K
R225
390
C180
16V
10μ
R226
470
R224
470
R227
39K
TP8
C179
220
CH
R262
330
R203
10K
5V
0V
0V
C195
Z-220
R263
220
C196
Z-330
Q135
JC501-R
W122
R199
100
R200
100
R201
100
Q138
JC501-
12V
TP31
TP30
TP28
TP29
C199
2200
C123
25V
.047
R127
100K
R129
82K
R128
0
82K
R130
R131
18K
R132
100K
TP24
TP25
TP22
R135
560K
R136
1K
C129
47
CH
C120
16V
10μ
R125
F-240K
C122
470
CH
C126
K-.01
C124
K-220
C125
470
CH
TP26
C128
25V
.1
Q127
BC327-40
27V SW
28V
28V
27.3V
R260
10K
R241
15K
R242
15K
12V
TP10
TP32
TP15
TP14
R111
22K
R112
4.7K
R113
39K
TP11
R114
22K
R115
39K
R116
4.7K
TP16
TP17
R117
82K
D100
1N4148
D101
1N4148
D102
1N4148
D103
1N4148
R121
82K
TP20
R118
180K
C197
12
C198
12
R120
180K
C114
22 CH
R126
1.2M
C101
K-3300
C102
K-2200
C103
K-2700
C105
K-2200
C104
16V
470μ
C107
Z-.01
C106
22
CH
R271
2.2K
TP18
C108
Z-.01
L100
4.7μH
C112
39 CH
C115
Z-.01
C109
25V
K-.1
C110
Z-.01
R119
820
C111
18
CH
C113
68
CH
L101
4.7μH
R122
820K
C116
25V
.1
C117
16V
10μ
C118
25V
K-.1
C119
25V
Z-.1
C121
K-.022
TP21
R123
820


9
10
11
12
13
14
15
16
17
PCB-VIDEO CRYPT HK
NOT USED
HK
AUTH
CLEAR
27V
12V
5V
VCRYPOUT
VCRYPIN
PCB-MAIN HH
HH
BLK
PBB
PBA
TVBUSC
TVBUSD
V-SYNC
H-SYNC
5V
C194 Z-.01
Q136 JC501-R
R265 220
SK100 JACK-MICROPHONE
R213 330
IC105 ST5291 SAT-μ-CON
R267 100
R266 10K
C193 Z-.01
R212 220
R214 330
TVBUSD
RESET
PBB
PBA
LNB2 ON
CLEAR
AUTH
CMDMUTE
H/V
LNB1 ON
CCVID
P3.6
P3.5
P3.4
B
G
R
F/B
SDA
SCK
VDD
P2.1
TVBUSC
P2.3
P2.4
P2.5
OSCIN
OSCOUT
5V ON
12V+20V ON
AUDSW3
AUDSW2
AUDSW1
P4.2
P4.1
P4.0
VSYNC
HSYNC
AVDD
PLLP
PLLP
YSS
R211 330
R210 330
R209 0
XT101 12MHZ
C174 22 CH
C175 22 CH
R215 10K
R216 10K
R217 10K
R250 10K
R251 10K
R252 10K
R253 10K
R208 2.7K
R207 2.7K
R218 330
R276 8.2K
R219 330
R204 330
R206 330
R220 27K
R221 6.8K
C178 16V 10μ
C176 K-220
C177 K-2200
C172 K-.1
T. F50
W122
W123
R203 10K
C195 Z-220
R262 330
R263
Q135 JC501-R
Q114 JC501-R
R191 470
R193 1K
C170 Z-.01
C169 47 CH
C167 120 CH
C171 K-.015
Q115 JA101-Q
R192 560
R189 320
R190 470
C166 10 CH
INK100
12V
5V
1
2
3
5.1V
2.1V
1.5V
10.5V
2.2V
0V
4.8V
2.6V
2.3V
8.2V



Q120 JC501-R
Q135 JC501-R
Q118 JC501-R
Q117 JC501-R
Q116 JC501-R
Q138 JC501-R
Q137 JC501-R
Q119 JC501-R
Q127 BC327-40 27V SW
Q128 BC327-40 12V SW
IC104 MC7812CT 12V REG
Q125 BC327-40 8V SW
IC109 MC7805CT 5V REG
Q129 JC501-R
Q130 JC501-R
Q131 JC501-R
Q124 JC501-R
Q126 JC501-R
Q132 JA101-Q
HSYNC
AVDD
PLLP
YSS
F/B
SDA
SCK
VDD
OSDIN
VI15
DEC2 IN
DEC1 IN
S1VIDIN
S2VIDIN
DAIN
AUDIO OUT2
AUDIO OUT1
FC RIGHT
SUMOUT
PEAKIN
FC LEFT
PEAKOUT
IREF
CPUMP2
AMPLOCK2
GND
CPUMP1
AGC2
TP8
TP20
TP21
TP22
TP24
TP25
TP26
TP28
TP29
TP30
TP31
D109 1N4148
D110 1N4148
D111 1N4148
D112 1N4148
D113 1N4148
W122
W123
F50
STBY 5V
OSD-R
OSD-G
OSD-B
R
G
B
GB
PCB-CRT GB
HJ
PCB-MAIN HJ
8V
5V
20V
29V
12V
27V

CT-25AV1R
CT-25AV1E
CT-25AV1HD
CT-25AV1S-S
CT-25AV1ED-S
CT-25AV1GD-S
CT-25AV1SD-S